

OWNER'S MANUAL

- ASSEMBLY
- OPERATION
- MAINTENANCE
- PARTS LIST

Model Nos.

10 HP ———— **138-493A**
 11 HP ———— **138-496A**

TOP FLITE MODEL

10 HP TECUMSEH 1/2 V STARTER

THREE Spd. PEARLESS TRANSAXL

38" CUTTING DECK

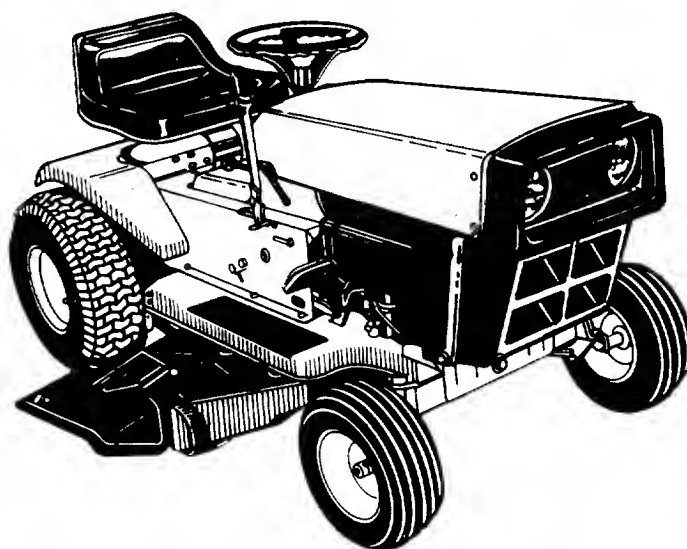
TIRES 15" X 6.50" PNEUMATIC

18" X 8.50"

Important:

**Read Safety Rules and
Instructions Carefully**

**38"
RIDING
MOWERS**



LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges under this warranty must be paid by the purchaser unless return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARNING TO PURCHASERS OF INTERNAL COMBUSTION ENGINE EQUIPPED MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment which you have just purchased does not have a spark arrester. If this equipment is used on any forest covered land, brush covered land, or grass covered unimproved land in the State of California, before using on such land, the California law requires that a spark arrester be provided. In addition, spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

SAFE OPERATION PRACTICES FOR RIDING VEHICLES

1. Know the controls and how to stop quickly—**READ THE OWNER'S MANUAL.**
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
3. Do not carry passengers.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction.
5. Clear work area of objects which might be picked up and thrown by the mower in any direction.
6. Disengage all attachment clutches and shift into neutral before attempting to start engine.
7. Disengage power to attachment(s) and stop engine before leaving operator position.
8. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
9. Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
10. Disengage power to attachment(s) when transporting or not in use.
11. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
13. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
14. Stay alert for holes in terrain and other hidden hazards.
15. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
16. Watch out for traffic when crossing or near roadways.
17. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
18. Handle gasoline with care—it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage—exhaust fumes are dangerous. Do not run engine indoors.
19. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
20. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
21. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
22. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
23. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
24. Do not change the engine governor settings or overspeed the engine.
25. When using the vehicle with mower, proceed as follows:
 - (1) Mow only in daylight or in good artificial light.
 - (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
 - (3) Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
 - (4) Check blade mounting bolts for proper tightness at frequent intervals.
26. Check grass catcher bags frequently for wear or deterioration. For safety protection replace only with new bag meeting original equipment specifications.
27. Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

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IMPORTANT

After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

The steering wheel and seat, with the necessary hardware, are easily assembled to the machine. The battery must be activated and installed as outlined in this section.

TIRE PRESSURE

FOR SHIPPING PURPOSES, THE TIRES ON YOUR UNIT MAY BE OVER-INFLATED. TIRE PRESSURE SHOULD BE REDUCED BEFORE UNIT IS PUT INTO OPERATION. PRESSURE SHOULD BE APPROXIMATELY 15 P.S.I. EQUAL TIRE PRESSURE SHOULD BE MAINTAINED ON ALL TIRES. MAXIMUM TIRE PRESSURE IS 30 P.S.I.



CAUTION

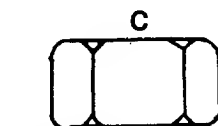
Installation of tire to rim:

1. Lubricate tire beads and rim flanges.
2. Do not exceed 30 P.S.I. when seating beads.
3. Adjust to recommended pressure after beads are sealed.

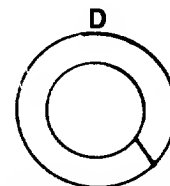


NOTE

Reference to right-hand or left-hand side of machine is from the driver's seat facing forward.



Hex Nut 1/2-13 Thd.



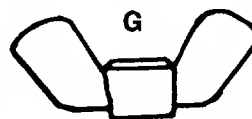
Spring Lockwasher
1/2" Screw



Belleville Washer



Hex Lock Nut 5/16-18 Thd.



Wing Nut 1/4-20



Hex Bolt
1/4-20 x 5/8



Lockwasher
1/4" Screw



Hex Nut
1/4-20 Thd.

FIGURE 1. HARDWARE SUPPLIED

ASSEMBLY

Step 1. Remove the lawn mower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.

Step 2. Place steering wheel over steering shaft.

Step 3. Secure with Belleville Washer (E) and Hex Nut (F). See figure 2.

Step 4. Press the cap on the steering wheel by hand. See figure 2.

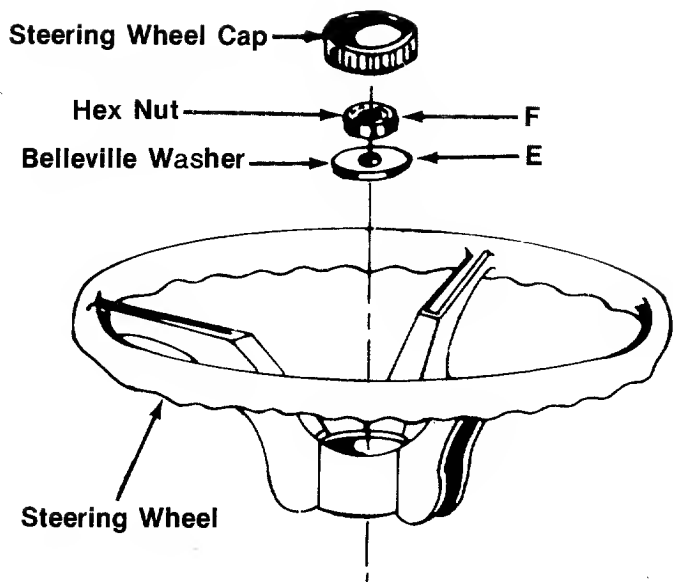


FIGURE 2. STEERING WHEEL ASSEMBLY

Step 5. Use the hex nut and lockwasher to attach the seat to the seat spring in one of the three adjustment holes. (See figure 3.)

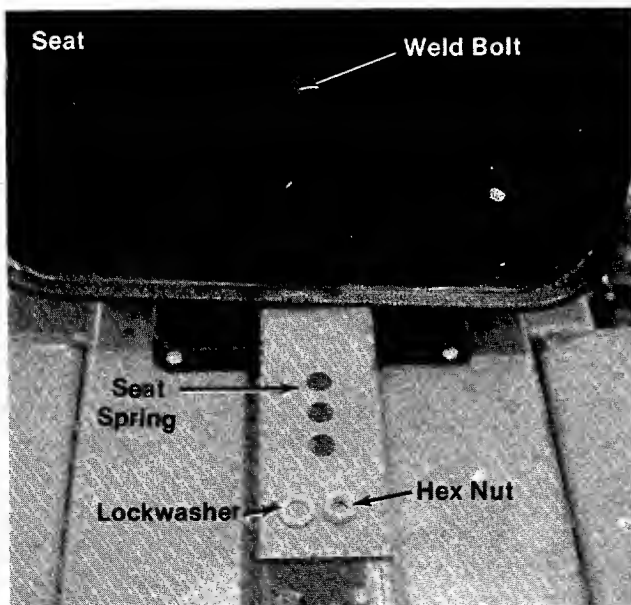


FIGURE 3.



NOTE

Check ALL nuts and bolts for correct tightness.

BATTERY INFORMATION



WARNING

- A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.
- B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.
- C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.
- D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.



WARNING

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added)

- A. Keep sparks, flame, cigarettes away.
- B. Hydrogen gas is generated during charging and discharging.
- C. Ventilate when charging or using in enclosed space.
- D. When using a charger—to avoid sparks—NEVER connect or disconnect charger clips to battery while charger is turned on.
- E. Always shield eyes, protect skin and clothing when working near batteries.

A. Activating the Battery

1. Place the battery to be filled on bench or workbench. NEVER activate battery in unit. Remove vent caps from all cells.
2. Fill each cell carefully using battery grade 1.250-1.265 specific gravity. Sulfuric acid to be 3/8" above the top of the separators or to the split ring.
3. Allow battery to set for 20 minutes to 1/2 hour. Add additional acid if necessary to bring it up to the proper level.
4. Replace the vent caps.

5. The battery can now be charged after the 20 minutes setting period. Battery can be SLOW CHARGED (DO NOT FAST CHARGE) at a maximum bench rate of 4-5 amperes until the specific gravity reading is 1.265-1.275. A charging rate in excess of this will buckle and warp the positive plates and perforate the separators. If electrolyte bubbles violently while charging, reduce charging rate until excessive bubbling action subsides, then continue charging until specific gravity is reached.



CAUTION

After battery has been in service, add only approved water. DO NOT ADD ACID.

B. To Install Battery

To install the battery in this unit, refer to next column.

C. Maintenance

1. Check periodically (every two weeks or before and after charging) to be sure electrolyte level is 9/16" above separator plates. Add only distilled water or good quality drinking water. NEVER add additional acid or other chemicals to battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225 remove battery and recharge.
3. Coat the terminals and exposed wiring with a thin coat of grease or petroleum jelly for longer service and protection against electrolyte corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.

D. Storage

1. Charge battery using normal methods. NEVER store discharge battery as it will not recover.
2. Store in cold, dry place.
3. Recharge battery whenever the specific gravity is less than 1.225 before returning to service or every two months, whichever occurs first.

E. Common Causes for Battery Failure Are:

1. Overcharging
2. Undercharging

3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte



NOTE

THESE FAILURES DO NOT CONSTITUTE WARRANTY.

INSTALLING THE BATTERY

1. Open the hood of the riding mower.
2. Place the battery in the battery case with the terminal to the front. See figure 4.

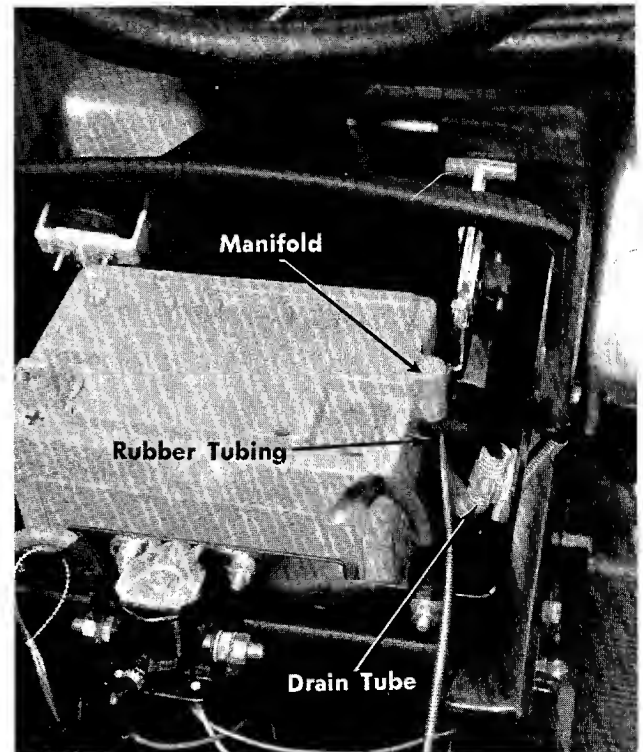


FIGURE 4.

3. Cut the black rubber tubing approximately 4 inches long.
4. Push the rubber tubing into the manifold of the battery and place the other end into the drain tube. See figures 4 and 5.



NOTE

The vented battery allows any gases or liquid from the battery to be carried to the rear of the mower through the drain tube.

5. Hook the hold down rods under the battery case and place the hold down over the manifold of the battery as shown in figure 6.
6. Secure the hold down with the wing nuts.

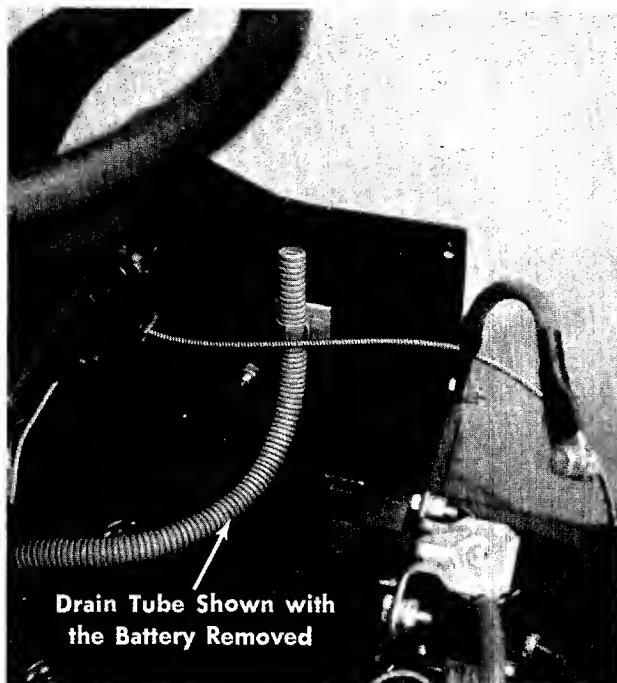


FIGURE 5.

7. Attach the positive cable (from the starter solenoid) and the small wire (from the ammeter) to the positive battery terminal with the bolt, lockwasher and nut in the assembly pack.

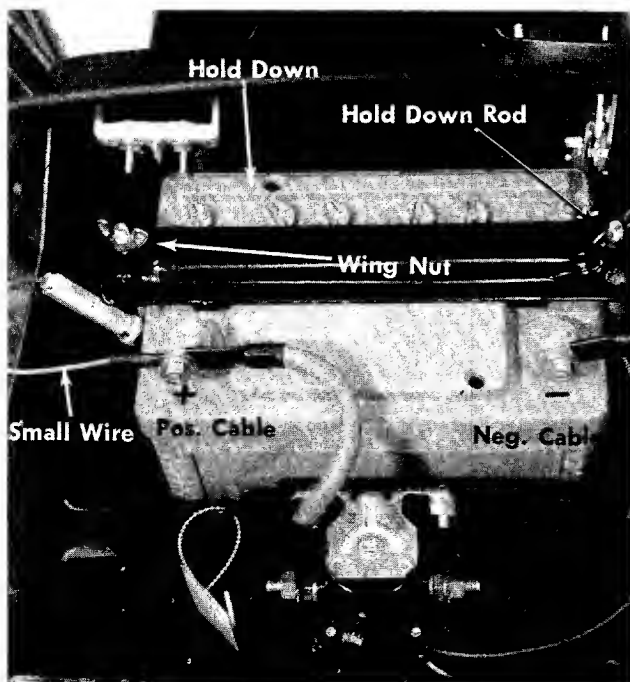


FIGURE 6.

8. Attach the negative cable, grounded, to the negative battery terminal with the bolt, lockwasher and nut in the assembly pack.

CONTROLS

The controls on both models may be considered as the Drive Control and the Cutting Control as follows:

a. Throttle Control The throttle control is used to regulate the engine speed and choke the engine. The engine should be operated from $\frac{3}{4}$ to full throttle when operating the cutting deck or snow thrower (optional). See figure 7.



FIGURE 7. CONTROLS

b. Gear Shift Lever. The gear shift lever is used to shift into one of three FORWARD GEARS, NEUTRAL or REVERSE. See figures 7 and 8.

c. Brake. The brake pedal is located on the right hand side of the mower and is operated by depressing it with your right foot. See figure 9.

d. Brake Lock. The brake lock is located on the right hand side of the mower. To lock the brake, depress the brake pedal and lift up the lock button. The pedal will stay depressed. To release, depress the pedal. See figure 9.

e. Clutch Pedal. The clutch pedal is used to disengage the drive mechanism. Depressing the clutch pedal at any time will reduce mower speed. If depressed all the way, it will stop the mower. See figure 10.

f. Clutch Lockout. When the clutch pedal is depressed all the way it can be locked by placing the clutch lockout in the START position as shown in figure 8. The clutch lockout must be in this position before the engine will start.

g. Ammeter. The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus side (+) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling the ammeter will not show a charge. See figure 7.

h. Light Switch. Pull the light switch out to turn on the lights. The lights will only operate when the engine is running. See figure 7.

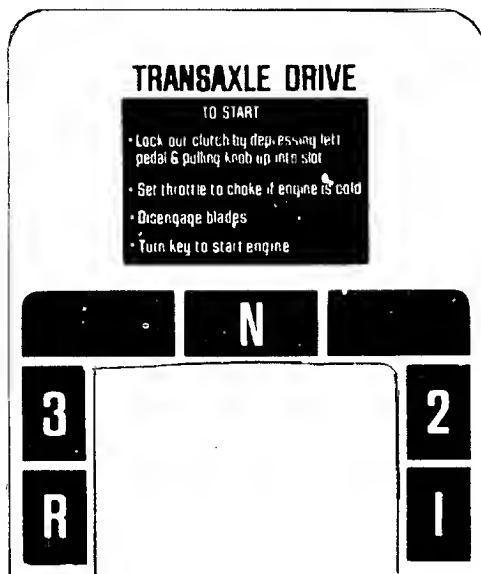


FIGURE 8. SHIFT PATTERN

i. Ignition Switch. The ignition switch is located on the right side of the dashboard.

Electric Start. See figure 7. Turn the key to the START position to start the engine. When the engine is running, let the key return to the ON position. To stop the engine, turn the key to the left to the OFF position and remove it to prevent accidental starting.



The engine will not start unless the clutch lockout is in the START position and the lift lever is in the DIS-ENGAGED position

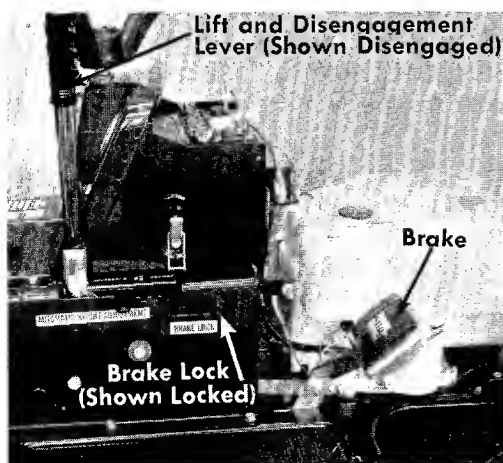


FIGURE 9. RIGHT HAND CONTROLS

j. Lift and Disengagement Lever. It is used to raise the cutting deck. Pulling it all the way back and locking it disengages the blades. The engine will not start unless the lift and disengagement lever is in the disengaged position. See figure 9.

k. Cutting Controls. The cutting controls consist of the height of cut stop and the wheel height adjusters.

Height of Cut Stop. See figure 11. Lift the stop and set it at the desired cutting height.

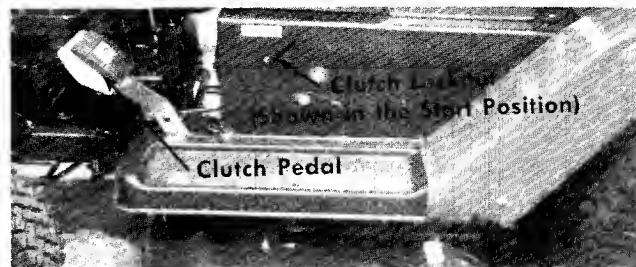


FIGURE 10. LEFT HAND CONTROLS

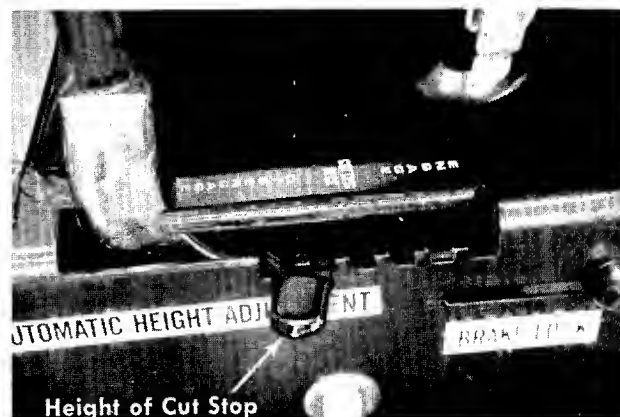


FIGURE 11. HEIGHT OF CUT SETTINGS

Wheel Height Adjuster. See figure 12. Move the lever towards the wheel and set it in the desired cutting height.

The cutting height of the mower can be set in two different ways: FULL FLOAT position where the deck follows the contour of the ground, and the SUSPENDED position where the deck hangs from the frame of the rider. The suspended position is normally used for cutting rough uneven ground.

To set the cutting deck in the full float position, set the wheel height adjusters in the desired cutting height as indicated in figure 12. Set height of cut stop in the 1½ position. See figure 11.

To set the cutting deck in the suspended position, set the height of cut stop in the desired cutting height and then set the deck wheel so they just clear the ground.

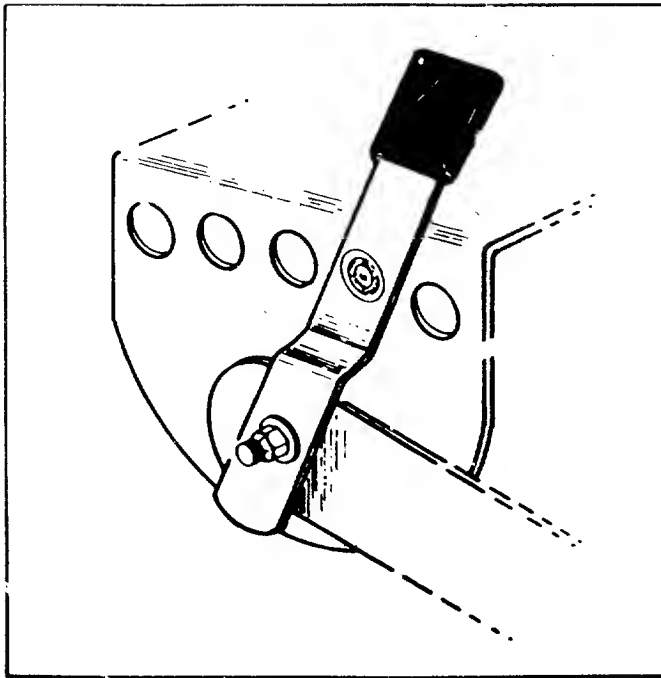


FIGURE 12. WHEEL HEIGHT ADJUSTER

OPERATING INSTRUCTIONS

STARTING THE ENGINE

Be sure to follow the instructions for the oil and gasoline as described in the engine section of this manual.

Step 1. Be sure the fuel shut-off valve is open.
See figure 13.

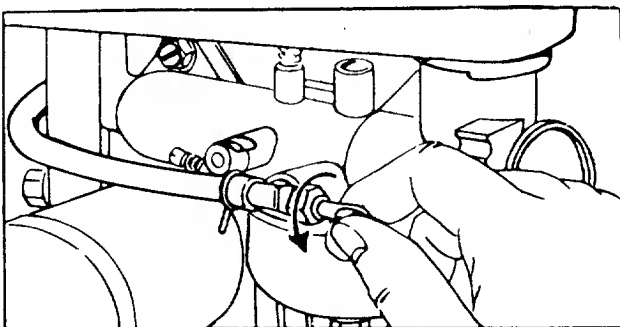


FIGURE 13. FUEL SHUT-OFF VALVE

Step 2. Place the clutch lockout in the START position. See figure 10.

Step 3. Place the lift and disengagement lever in the DISENGAGED position. See figure 9.

Step 4. Set the throttle control in the CHOKE position. See figure 7.



This unit is equipped with a brake indicator light which is located on the dash panel. Whenever the starter key is on and the brake pedal is depressed, it will light.



This light indicates that the brake is engaged. Operating the unit with the brake engaged will result in rapid brake wear and premature brake failure.

Electric Start

See figures 14 and 15. Turn the ignition key to the START position. When the engine is running, let the key return to the ON position.



FIGURE 14. STARTER SWITCH

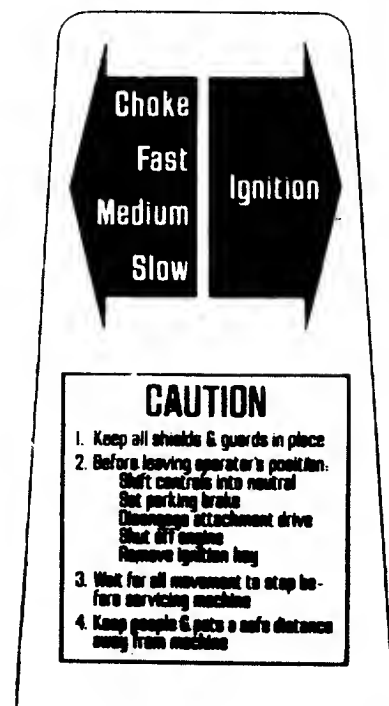


FIGURE 15. DASH PANEL LABEL



NOTE

A brief break-in period is essential to ensure maximum engine and mower life. This consists of running the engine at half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first 2 hours of operation.



CAUTION

Parking brake **MUST** be disengaged before unit is put into motion.



NOTE

Unit is equipped with separate brake and clutch pedals. To efficiently stop, it is necessary to disengage clutch when applying brakes.

STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position and remove the key to prevent accidental starting.

OPERATING THE MOWER

- Step 1. Set the desired cutting height.
- Step 2. Start the engine as outlined above.
- Step 3. Select gear and shift.



NOTE

DO NOT force the gear shift lever! If the lever cannot be moved from NEUTRAL to one of the drive positions, release the clutch pedal slowly, depress it again, and then move the gear shift lever as required.

- Step 4. Once the machine is in motion, remove foot from the pedal. The mower will now move ahead or to the rear, and the use of the steering wheel will provide directional control.
- Step 5. The mower is brought to a stop by pressing your right foot against the brake pedal and your left foot against the clutch pedal. The drive belt will be disengaged and the brake will be applied.



CAUTION

Gear changing should be done only after the mower has been brought to a full stop. If the mower is not to be used for a long period, place the gear shift lever in NEUTRAL and stop the engine. **DO NOT** leave the machine on an incline.

OPERATING THE CUTTER BLADE

The cutting blades may be engaged while the mower is moving or standing still. **DO NOT** engage the cutting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.



WARNING

When the blade drive is engaged, keep feet and hands away from the discharge opening and from the blade.

To stop the blades, move the lift and disengagement lever (figure 9) into the DISENGAGED position. This raises the deck and disengages the blades.



NOTE

When the machine is used for other than mowing operations the blade drive should be disengaged.

MAINTENANCE

CRANKCASE OIL

To ensure maximum engine performance, perform the following periodic maintenance:

Oil Check

Check the oil level in the crankcase before each use of the machine and after every five hours of operation. Oil should be kept between the add and full marks on the dipstick.

After the first five hours of operating a new engine, drain the oil (See figure 16) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil every 25 hours of operation. This procedure ensures for minimum wear of engine parts and provides for virtually trouble-free operation. To change the oil, proceed as follows:

Step 1. With the machine on level ground, place a suitable metal container under the oil drain plug, then remove the drain plug. See figure 14.

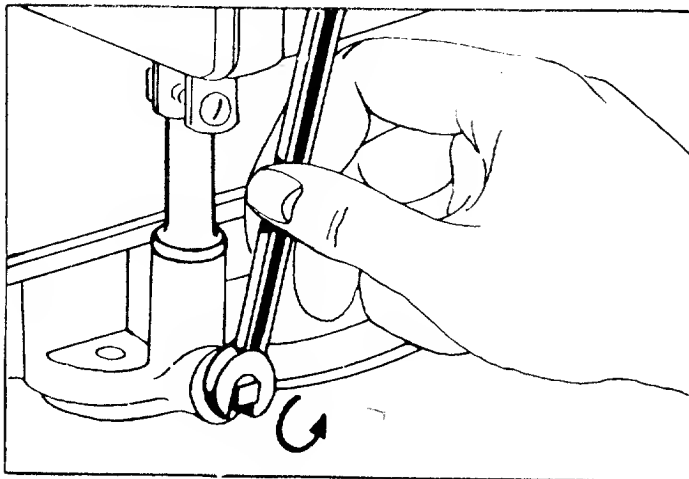


FIGURE 16. OIL DRAIN

Step 2. After the oil has been drained completely from the crankcase, replace the drain plug and tighten.

Step 3. Refill crankcase with 2¼ pints of good quality, type MS, Engine oil into the crankcase. Summer use SAE 30; Winter (Below 40°F.) use SAE 5W-20 or SAE 10W. (Use Wizard 4 Cycle Power Mower Oil Stock No. 78-2050).*

Lubricate the wheel bearings (2 per wheel) and the upper and lower spindle bearings with SAE 30 oil once a season. See figure 17.

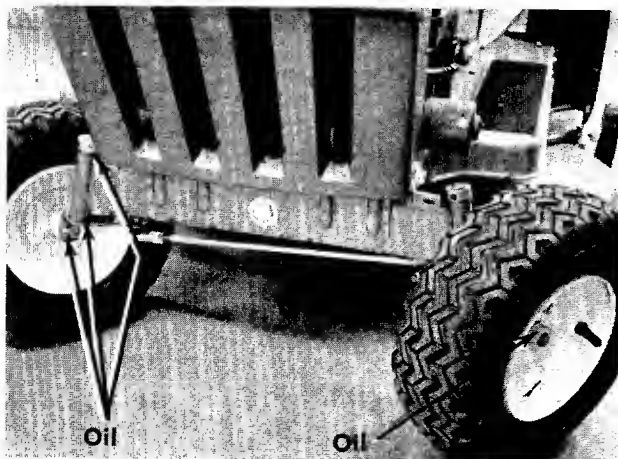


FIGURE 17. WHEEL AND SPINDLE BEARINGS

LUBRICATION

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under

extremely dusty operating conditions the air cleaner must be serviced after every hour of operation. Refer to figure 18.

When assembling the air cleaner, make certain the lip of the foam element extends over edge of the air cleaner body. The foam element will form a protective seal.

Step 1. Remove two screws and lift off complete air cleaner assembly.

Step 2. Remove screen and spacers from foam element.

Step 3. Remove foam element from air cleaner body.

Step 4. a. Wash foam element in kerosene or liquid detergent and water to remove dirt.

b. Wrap foam in cloth and squeeze dry.

c. Saturate foam in SAE 30 engine oil, then squeeze out excess oil.

d. Assemble parts, fasten to carburetor with screw.

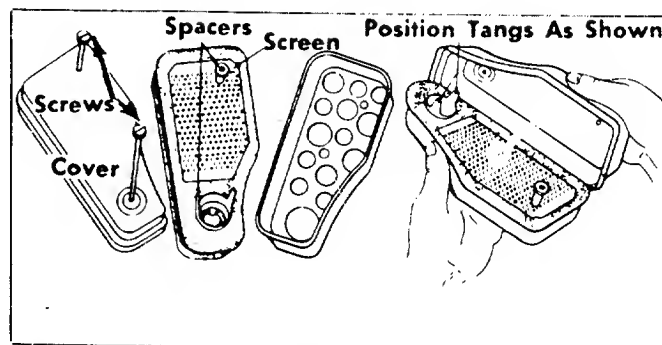


FIGURE 18. AIR CLEANER

CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine. Clean the underside of the blade housing after each mowing.

BELTS

Check that belts are free of oil or dirt. Wipe the belts periodically with a clean rag.



Belt tension is automatically maintained by the spring on the variable speed bracket on the drive belts and the belt tension on the deck belt is maintained by the two deck springs.

SPARK PLUG

The spark plug gap should be cleaned and reset to a 0.030-inch clearance every 25 hours of engine operation. (See figure 19.) Spark plug replacement is recommended at the start of each mowing season; check engine parts list for correct plug type.



NOTE

Whenever the spark plug is removed for cleaning, it is advisable to replace the spark plug gasket with a new gasket.

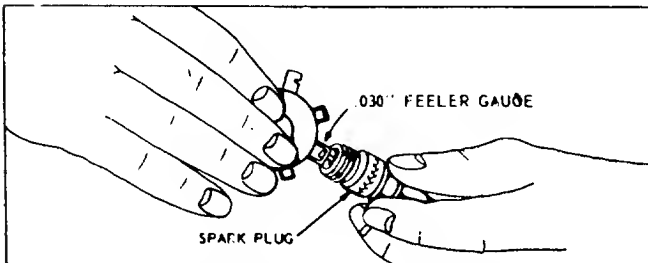


FIGURE 19. SPARK PLUG CLEARANCE

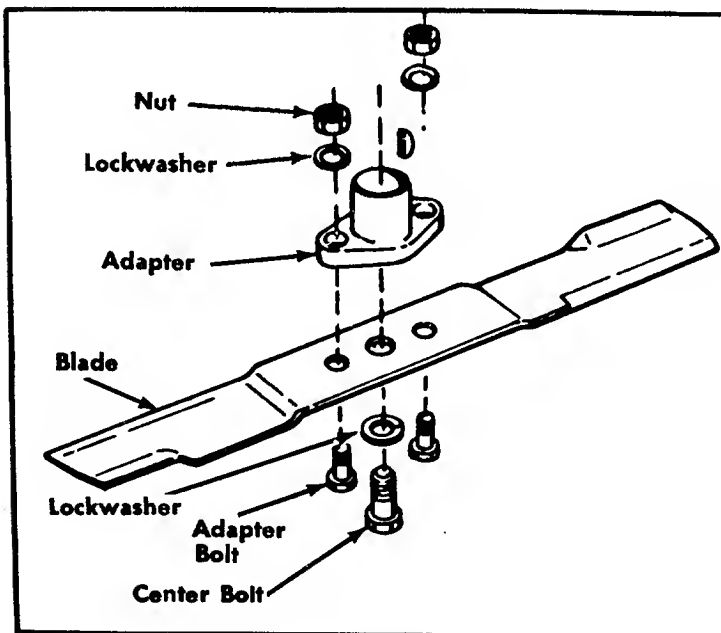


FIGURE 20. BLADE REMOVAL

REPLACING BLADE



WARNING

Before beginning work on the cutter blade, remove the spark plug from the cylinder.

The adapter can be removed from the blade by removing the two adapter bolts, lockwashers and nuts.

Removing and Sharpening Blades. Remove the center bolt and lockwasher. See figure 20. Pull the blade and blade adapter from the blade spindle.

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) requires no adjustment. Automotive steering principals have been used to determine the caster and camber on the rider. The front wheels should toe-in 1/8 inch.

To adjust the toe-in follow these steps.

Step 1. Remove the elastic locknut and drop the tie rod end from the wheel bracket. See figure 21.

Step 2. Loosen the hex jam nut on the rod.

Step 3. Adjust the tie rod assembly for correct toe-in.

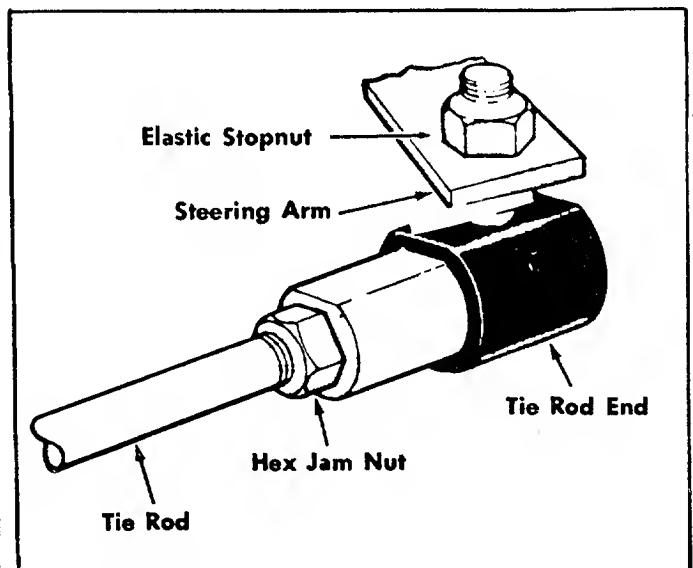


FIGURE 21. TIE ROD END

ADJUSTMENT

Dimension "B" should be approximately 1/8" less than dimension "A".

- To increase dimension "B", screw the rod into tie rod end.
- To decrease dimension "B", unscrew tie rod from tie rod end.
- Reassemble the rod. Check dimensions. Readjust if necessary.

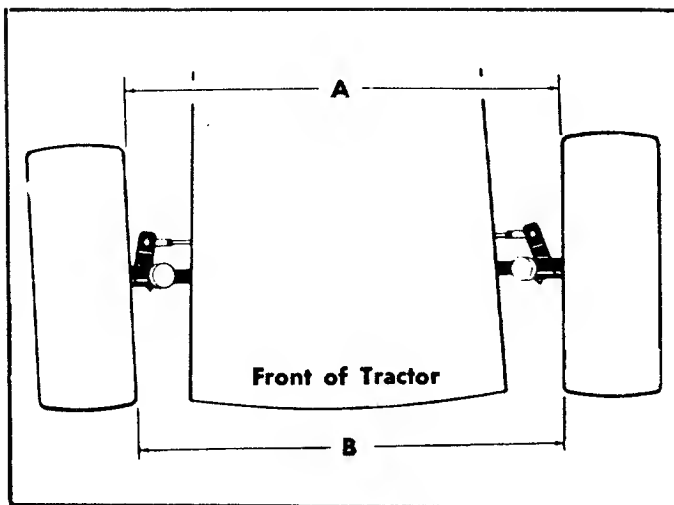


FIGURE 22. TOE-IN DIAGRAM



To insure safe operation of your unit
ALL nuts and bolts must be checked
periodically for correct tightness.

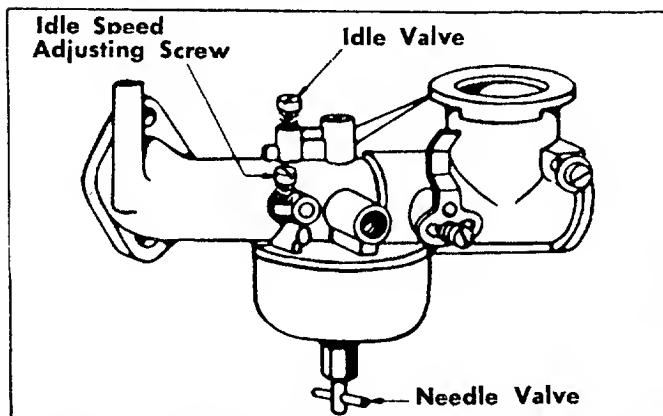


FIGURE 23. CARBURETOR ADJUSTMENT

ADJUSTING CARBURETOR CHOKE

Proper choke operation is dependent upon proper adjustment of remote controls on the powered equipment.

To Check Operation of Choke-A-Matic Controls:

Move control lever to CHOKE position. (See figure 7.) The carburetor choke should be closed.



The air cleaner can be removed to
check the operation of the choke.

To Adjust:

Place control lever on equipment in FAST (high speed) position. Loosen control casing clamp screw B. Move control casing A and wire until lever D touches choke operating link at C. Tighten casing clamp screw B. See figure 24.

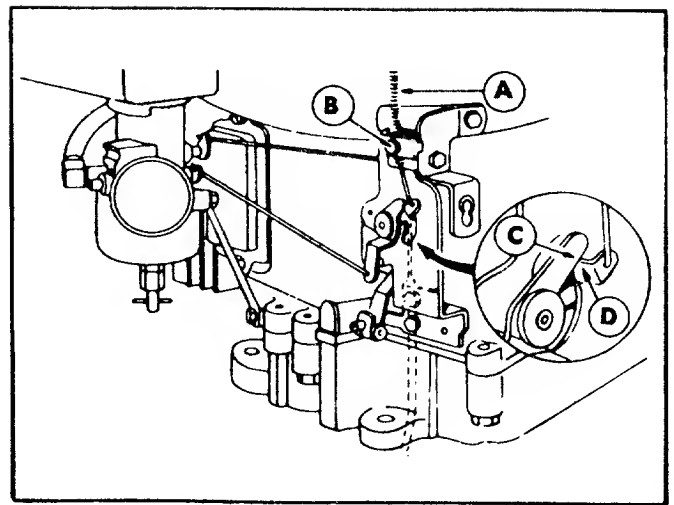


FIGURE 24. CHOKE ADJUSTMENT

BRAKE ADJUSTMENT

1. Move brake pedal forward by hand until pressure or resistance is noted. This is the point where the brake pedal spring begins to stretch.
2. If adjustment is correct, parking brake lock will have moved approximately $\frac{1}{4}$ ". See figure 25.

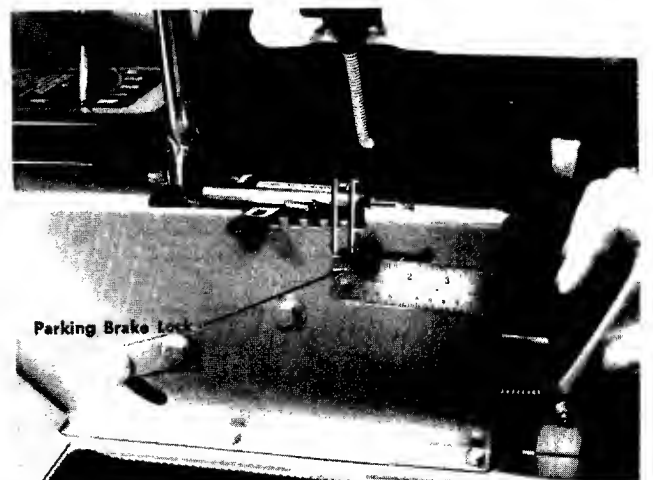


FIGURE 25. PARKING BRAKE LOCK

3. If adjustment is incorrect, tighten or loosen brake adjusting nut until correct dimension is obtained. See figure 26. Over tightening will reduce effective braking action. Lock brake adjustment with brake adjustment locknut. Periodic adjustment is necessary to maintain effective brake operation.

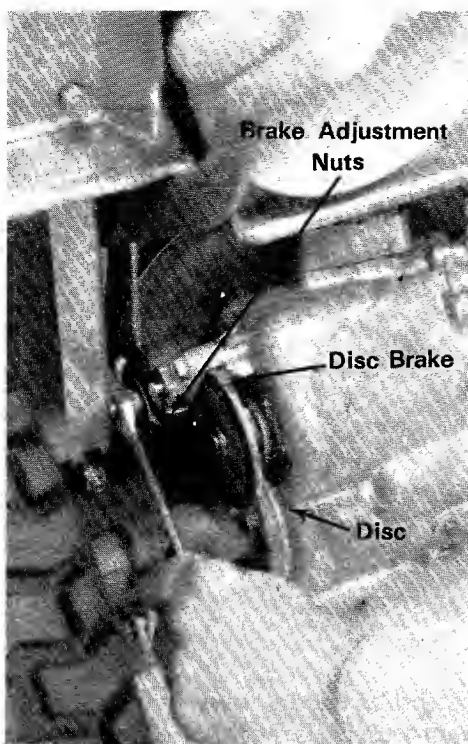


FIGURE 26. BRAKE ADJUSTMENT NUT

PREPARING FOR BELT REMOVAL

1. To prevent gasoline from leaking from the engine, remove the fuel tank cap, place a piece of thin plastic over the neck of the fuel tank and screw on the cap.
2. Disconnect the spark plug wire and ground it against the engine.
3. Remove the battery to prevent acid from leaking.



WARNING

Disconnect the negative terminal first and connect last when installing the battery.

MOWING UNIT BELT REPLACEMENT

- Step 1. Place the lift lever in the disengaged position. See figure 9.
- Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 27.
- Step 3. Unhook the belt from the engine pulley. See figure 28.
- Step 4. Place the lift lever in the engaged position. See figure 9.

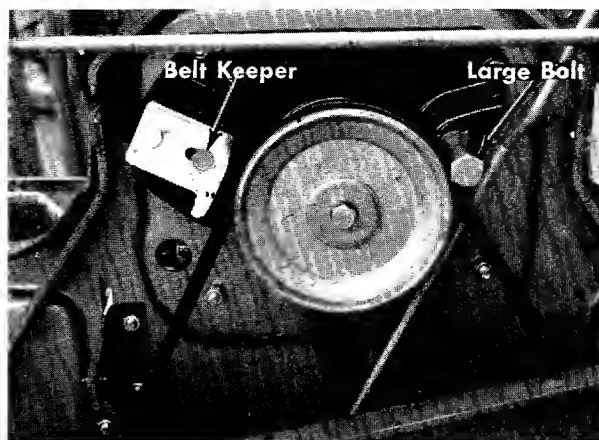


FIGURE 27. BELT KEEPER

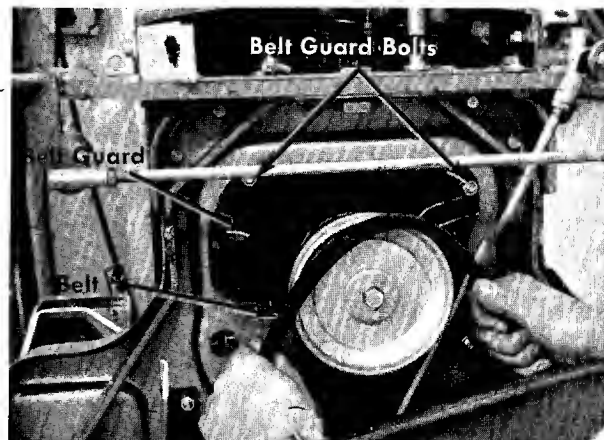


FIGURE 28. REMOVING MOWER BELT

Step 5. Unhook the tension springs on both sides of the deck. See figure 29.

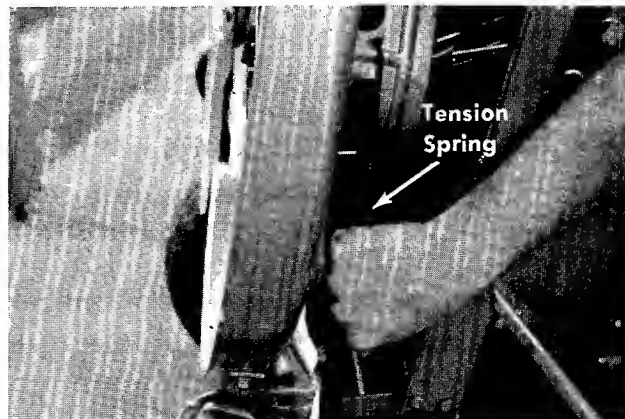


FIGURE 29. REMOVING TENSION SPRINGS

- Step 6. Remove the front four deck links from the cutting deck. See figure 30.
- Step 7. Remove the belt guards from both deck pulleys. See figure 30.
- Step 8. Remove and replace the belt and reassemble.

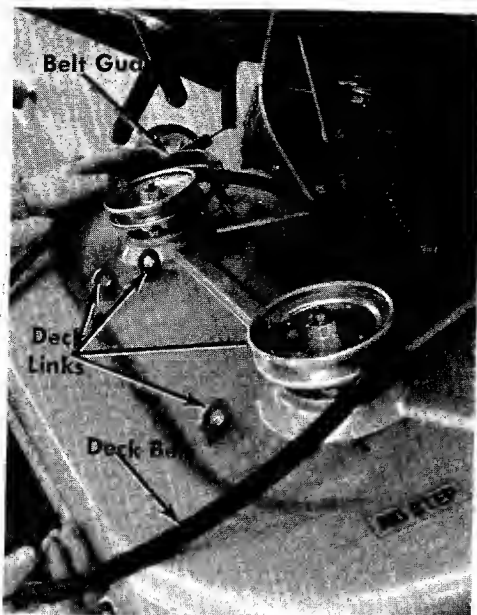


FIGURE 30. DECK LINKS

TRANSMISSION BELTS REMOVAL

- Step 1. Place the lift lever in the disengaged position. See figure 9.
- Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 27.
- Step 3. Unhook the belt from the engine pulley. See figure 28.
- Step 4. Place the lift lever in the engaged position. See figure 9.
- Step 5. Unhook the tension springs on both sides of the deck. See figure 29.
- Step 6. Remove the front four deck links from the cutting deck. See figure 30.
- Step 7. Tip the deck down as shown in figure 30.



NOTE

Leave the belt attached to the deck pulleys unless you want to replace it.



NOTE

By working between the frame and the deck, it is possible to remove and replace the deck belt without removing the deck, however, the working space is limited.

- Step 9. **Removing the transmission belt.** See figure 30.

- a. Remove the entire belt guard from the engine pulley by removing the two front engine bolts. See figure 29.

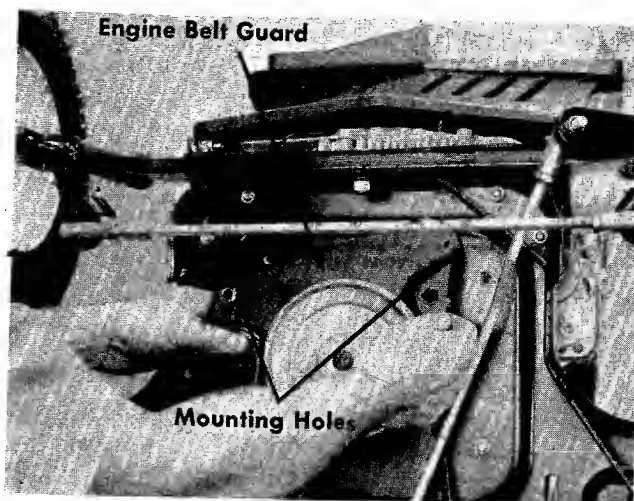


FIGURE 31. BELT GUARD REMOVAL

- b. Remove the transmission pulley by removing the hex nut and washer. See figure 30.
- c. Remove the bolt and nut from the steering rack and remove the belt.
- d. Reassemble in reverse order with the new belt.

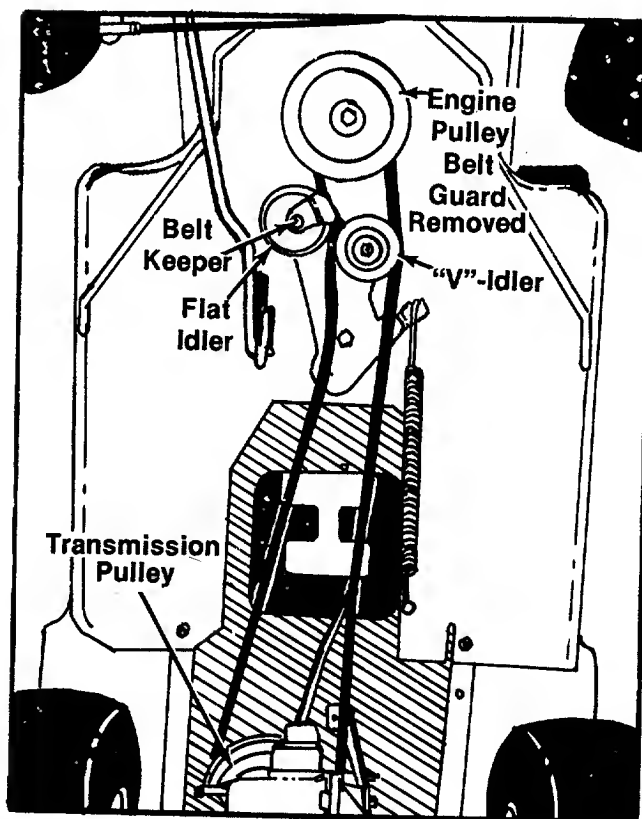


FIGURE 32. BOTTOM VIEW

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following precautions are recommended:

- Step 1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in carburetor is exhausted.

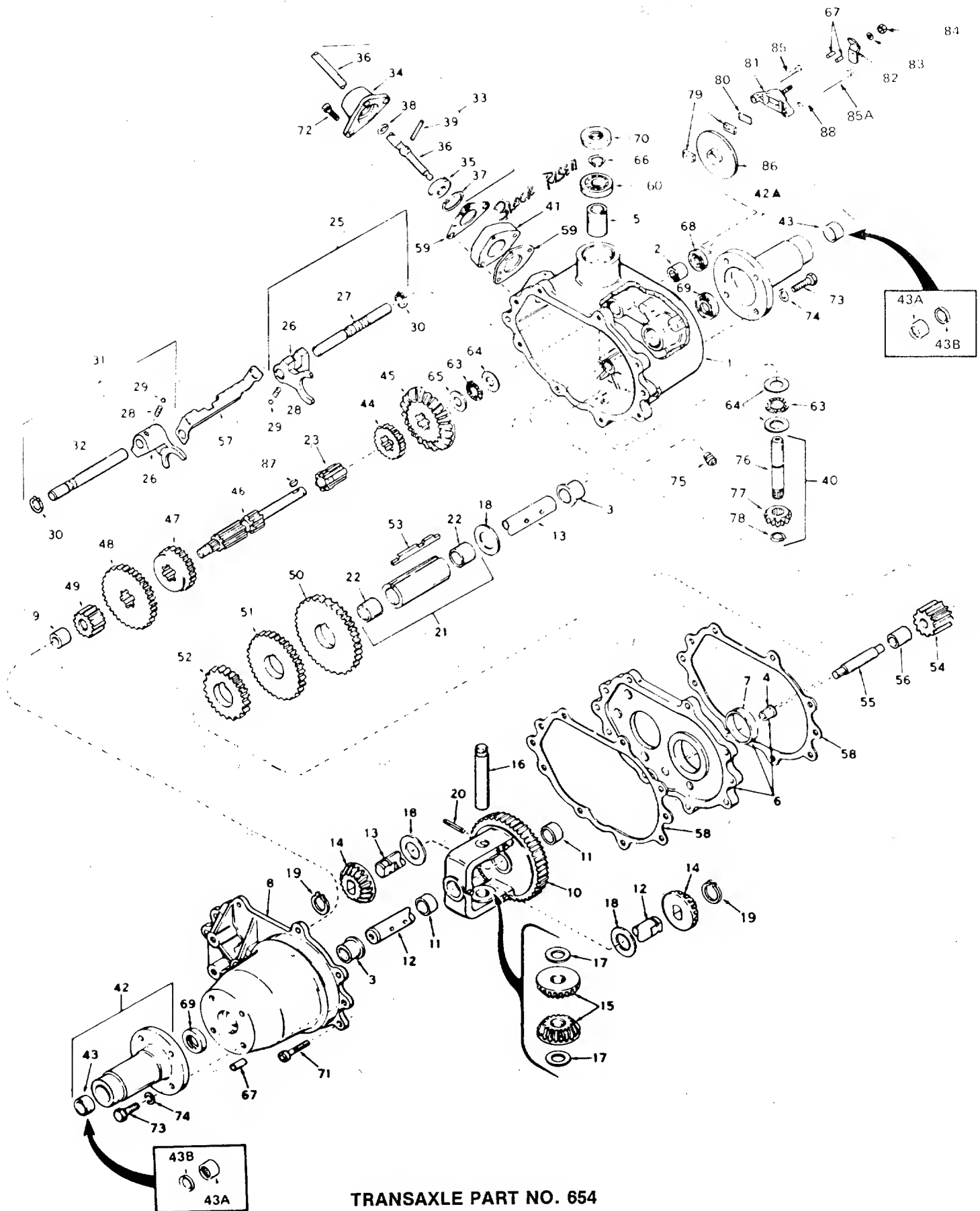


Do not drain fuel while smoking, or if near an open fire.

- Step 2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.
- Step 3. Disconnect the spark plug wire and remove the spark plug from the cylinder. Pour about six drops of engine oil into the cylinder, and then pull the recoil starter several times to spread the oil on the cylinder wall. Replace the spark plug, but DO NOT connect the wire.
- Step 4. Clean the engine and the entire mower thoroughly.
- Step 5. Lubricate all lubrication points indicated in figure 15; then wipe the entire machine with an oiled rag in order to protect the surfaces.

TROUBLE SHOOTING CHART

TROUBLE	LOOK FOR	REMEDY
Engine fails to start.	Safety System	<p>A. Check for a blown fuse in the wire leading from the positive terminal of the battery.</p> <p>B. Before checking the safety system further, be sure the clutch control and the blade control are disengaged; only the starting system is being checked. Therefore remove the spark plug lead and ground it to prevent the engine from starting.</p> <p>C. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal (coil primary) of the solenoid. If the engine cranks, the problem is in the safety system.</p> <p>D. Check for continuity from the battery to the solenoid. NOTE: The positive terminal of the battery should have a large cable (#8 gauge) and a small wire (#18 gauge) attached to it.</p> <p>E. Check all wires and cable for tightness.</p> <p>F. Use a #8 gauge wire and jump between the two large terminals of the solenoid. If the unit starts, replace the solenoid.</p> <p>G. If the unit fails to start after following the above procedure the problem is probably in the starting motor of the engine.</p>
	Blocked fuel line or empty gas tank	Clean fuel line; check fuel supply. Also check fuel shut-off valve.
	Defective spark plug	<p>Spark plug lead wire disconnected.</p> <p>Faulty spark plug—spark should jump gap between control electrode and side electrode. If spark does not jump, replace spark plug.</p> <p>NOTE: Use insulated pliers to hold the spark plug wire.</p>
	Throttle setting	Throttle control lever not in the starting position.
	Loose connections	Spark plug wire loose.
Hard starting or loss of power.	Dirty air cleaner	Remove air cleaner and clean as outlined on page 17 of this manual.
	Carburetor improperly adjusted	Review paragraph Carburetor Adjustment .
Excessive vibration.	Bent or damaged blade spindle	Stop engine immediately; tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to discharge grass.	Discharge chute clogged	Clean discharge chute and inside of deck.
	Foreign object lodged in deck	Remove object from deck. See CAUTION following step 1 in paragraph Operation .
Engine overheats.	Obstructions in air passages	Remove any obstruction from air passages in shroud.
	Grass and dirt in engine shroud	Clean cooling fins.
	Oil level	Fill crankcase to proper oil level.



MUST ORDER FROM PEERLESS

PARTS LIST FOR TRANSAXLE MODEL NO. 654

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	PE-770063	Case Ass'y. Transaxle (Incl. Nos. 2, 3 & 5)	43A	PE-530105	Bearing, Needle
2	PE-780086	Bearing, Needle	43B	PE-788042	Seal, Oil
3	PE-780059	Bearing, Bronze	44	PE-778024	Gear (16 teeth)
4	PE-780060	Bearing, Bronze	45	PE-778057	Gear, Bevel (33 teeth)
5	PE-780061	Bearing, Bronze	46	PE-776138	Shaft, Shifter & Brake
6	PE-786033	Plate Ass'y., Center (Incl. Nos. 4 & 7)	47	PE-778058	Gear, Shifting (2nd & 3rd)
7	PE-780062	Bearing, Bronze	48	PE-778059	Gear, Shifting (1st & Rev.)
8	PE-772042	Cover Ass'y., Transaxle (Incl. Nos. 3 & 9)	49	PE-778060	Gear, Spur (12 teeth)
9	PE-780063	Bearing, Needle	50	PE-778061	Gear, Countershaft Drive (39 teeth)
10	PE-778053	Gear Ass'y., Differential (Incl. No. 11)	51	PE-778062	Gear, Countershaft (34 teeth)
11	PE-780064	Bearing, Bronze	52	PE-778063	Gear, Countershaft (25 teeth)
12	PE-774340	Axle, Left Hand	53	PE-792034A	Key, Countershaft
13	PE-774341	Axle, Right Hand	54	PE-778064	Idler, Reverse
14	PE-778067	Gear, Bevel	55	PE-776057	Shaft, Reverse Idler
15	PE-778068	Pinion, Bevel	56	PE-786036	Spacer, Reverse Idler
16	PE-786034	Pin, Drive	57	PE-784087	Stop, Shifter
17	PE-780065	Washer, Thrust	58	PE-788033	Gasket, Case & Cover
18	PE-780001	Washer, Thrust	59	PE-788003	Gasket, Shift Lever Hsg.
19	PE-788038	Ring, Snap	60	PE-780093	Bearing, Ball
20	PE-792040	Pin, Roll	63	PE-780071	Bearing, Thrust
21	PE-786035	Sleeve Ass'y., Countershaft (Incl. No. 22)	64	PE-780072	Washer, Thrust
22	PE-780066	Bearing, Bronze	65	PE-780073	Washer, Thrust
23	PE-776090	Shaft, Idler	66	PE-792035	Ring, Snap
25	PE-784079	Rod Ass'y., Shift (1st & Rev.) (Incl. Nos. 26 thru 30)	67	PE-786026	Pin, Dowel
26	PE-784004	Fork, Shift	68	PE-788043	Seal, Oil
27	PE-784083	Rod, Shift	69	PE-788009	Seal, Oil
28	PE-792003	Spring	70	PE-788035	Seal, Oil
29	PE-792004	Ball, Steel	71	PE-792036	Scr., Socket Hd. Cap, 1/4-20 x 1 1/4
30	PE-792017	Ring, Snap	72	PE-792051	Scr., Socket Hd. Cap, 1/4-20 x 1 3/4
31	PE-784084	Rod Ass'y., Shift (2nd & 3rd) (Incl. Nos. 26, 28, 29, 30, 32)	73	PE-792037	Scr., Hex Hd., 5/16-18 x 1
32	PE-784085	Rod, Shift	74	PE-792029	Lockwasher, 5/16"
33	PE-784244	Lever & Hsg. Ass'y., Shift (Incl. Nos. 34 thru 39)	75	PE-792039	Plug, Pipe 1/8"
34	PE-784088	Housing, Shift Lever	76	PE-776155	Shaft, Input
35	PE-784094	Keeper, Shift lever	77	PE-778077	Pinion, Input
36	PE-3396P1	Lever, Shift	78	PE-788040	Ring, Retaining
37	PE-792016	Ring, Snap	79	PE-790006	Pad, Brake
38	PE-792001	Ring, Quad	80	PE-790007	Plate, Brake Pad
39	PE-792049	Pin, Drive	81	PE-790005	Holder, Brake Pad
40	PE-776154	Shaft & Gear Ass'y., Input (Incl. Nos. 76, 77 & 78)	82	PE-790004	Lever, Brake
41	PE-786057	Block, Riser	83	PE-792076	Washer, Flat
42	PE-782038A	Hsg. Ass'y., Axle (Incl. #43)	84	PE-792075	Nut, Lock
42A	PE-782043	Hsg. Ass'y., Axle (Incl. #43)	85	PE-792073	Scr., Hex Hd. Cap, 1/4-20 x 1 1/4 thd. forming
43	PE-780091	Brg. & Seal Ass'y., Needle (See Note 1)	85A	PE-792085	Scr., Hex Hd. Cap, 1/4-20 x 2 1/4 thd. forming
			86	PE-790009	Disc, Brake
			87	PE-792045	Key, Woodruff #61
			88	PE-786066	Spacer

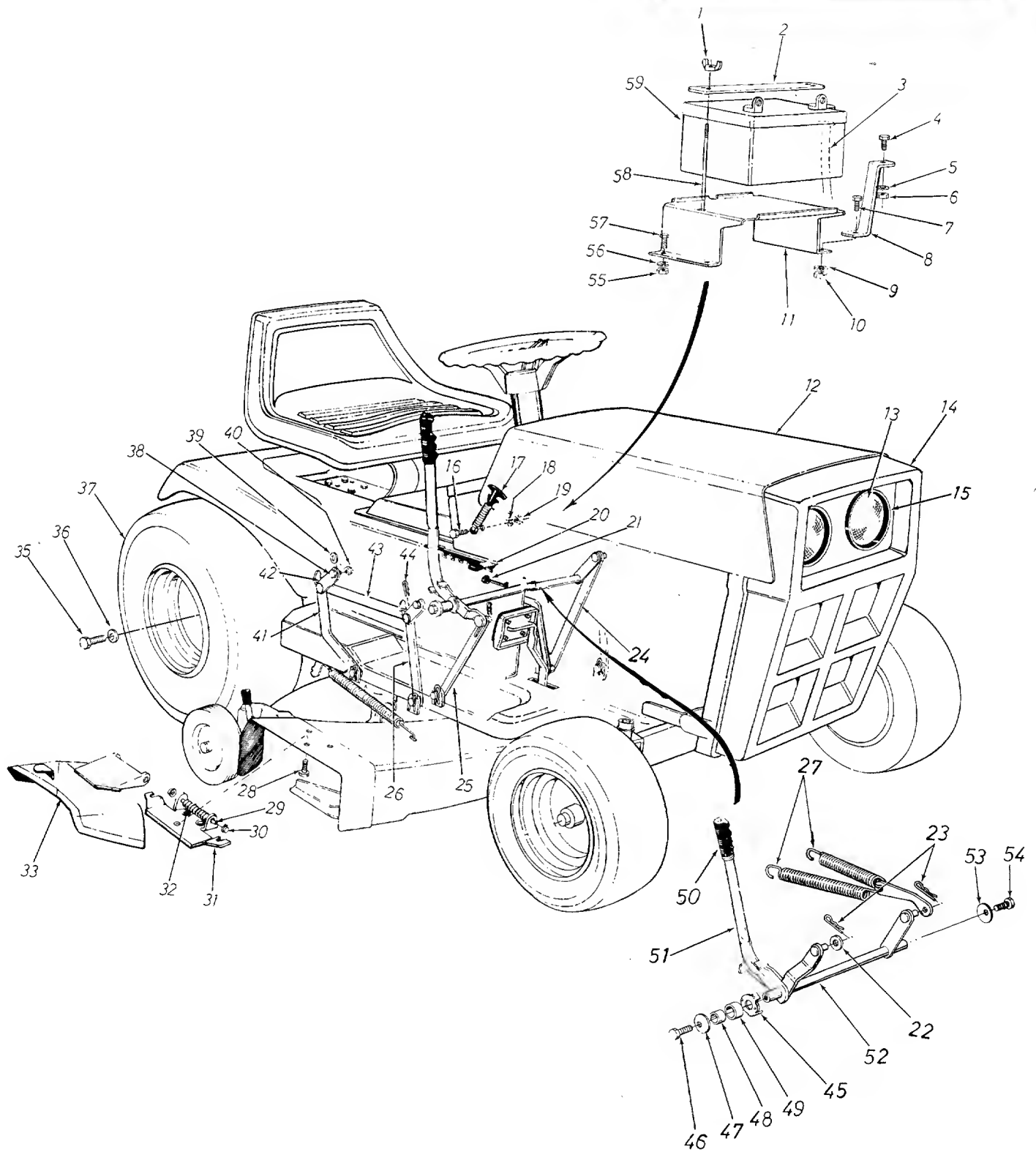


NOTE

The no. 780091 bearing and seal can be used interchangeably with the separate #530105 bearing and the separate no. 788042 seal.

138-493A
138-496A

IF YOU WRITE TO US ABOUT THIS ARTICLE
 OR IF YOU ORDER REPLACEMENT PARTS AL-
 WAYS MENTION THIS MODEL & SERIAL NO
 MODEL



PARTS LIST FOR MODELS 138-493A AND 138-496A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	712-0113		Wing Nut Solid 1/4-20 Thd.		33	11574		Chute Cover Ass'y.	
2	12614		Battery Hold Down		35	710-0627		Hex Scr. 5/16-24 x .75" Lg.*	
3	731-0333		Convolutd Conduit		36	736-0242		Bell. Wash. .345 I.D. x .88 O.D.	
4	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg.		37	734-0601		Rear Wheel Ass'y.—Comp. 18.0 x 8.50	
5	736-0329		L-Wash. 1/4" Scr.*		38	738-0140		Shld. Scr. .437 Dia. x .180	
6	712-0272		Hex Nut 1/4-20 Thd. Sems*		39	736-0264		Fl-Wash. .344 I.D. x .62 O.D.	
7	710-0258		Hex Scr. 1/4-20 x .62" Lg.*		40	712-0267		Hex Nut 5/16-18 Thd.*	
8	12811		Battery Brkt. Brace		41	10349		Deck Link Ass'y.	
9	736-0329		L-Wash. 1/4" Scr.*		42	09721		Pivot Link Ass'y.	
10	712-0287		Hex Nut 1/4-20 Thd.*		43	09735		Connecting Rod 3/16 x 1 x 12.5" Lg.	
11	12747		Battery Brkt.		44	714-0101		Inter. Cot. Pin 1/2" Dia.	
12	11836 —456		Hood		45	11029		Handle Pivot Brkt.	
13	725-0222		Head Lamp		46	710-0201		Hex Scr. 3/8-16 x .62" Lg.*	
14	731-0409		Grille		47	736-0219		Bell. Wash. .400 I.D. x 1.13 O.D.	
15	735-0156		Headlight Door		48	748-0201		Spacer .635 I.D. x .88 O.D. x .57	
16	710-0289		Hex Scr. 1/4-20 x .50" Lg.*		49	735-0180		Rubber Wash. .75 I.D. x 1.25 O.D.	
17	723-0296		Hood Latch Ass'y.		50	720-0157		Grip	
18	736-0329		L-Wash. 1/4" Scr.*		51	749-0212		Lift Handle	
19	712-0287		Hex Nut 1/4-20 Thd.*		52	11032		Lift Handle Brkt. Ass'y.	
20	11027		Handle Stop Brkt. Ass'y.		53	736-0219		Bell. Wash. .400 I.D. x 1.13 O.D.	
21	726-0121		Push Cap 1/4" Dia. Black		54	710-0201		Hex Scr. 3/8-16 x .62" Lg.*	
22	736-0192		Fl-Wash. .531 I.D. x 1.13 O.D.		55	712-0287		Hex Nut 1/4-20 Thd.*	
23	714-0101		Inter. Cot. Pin 1/2" Dia.		56	736-0329		L-Wash. 1/4" Scr.*	
24	10346 10346		Lock Out Link Ass'y.		57	710-0258		Hex Scr. 1/4-20 x .62" Lg.*	
25	10346 10346		Lock Out Link Ass'y.		58	711-0222		Battery Hold Down Rod	
26	10904		Deck Link Ass'y.		59	725-0453		Battery 12-Volt Manifold Vented	
27	732-0232		Spring Brkt.	N					
28	710-0195		Hex Scr. 1/4-28 x .62" Lg.*						
29	711-0576		Pivot Pin						
30	726-0106		Push-on Flange Palnut						
31	11399		Adapter Plate Ass'y.						
32	732-0261		Torsion Spring						

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(456—Radiant Tangerine)

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Radiant Tangerine Finish—11836 (456).)



NOTE

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

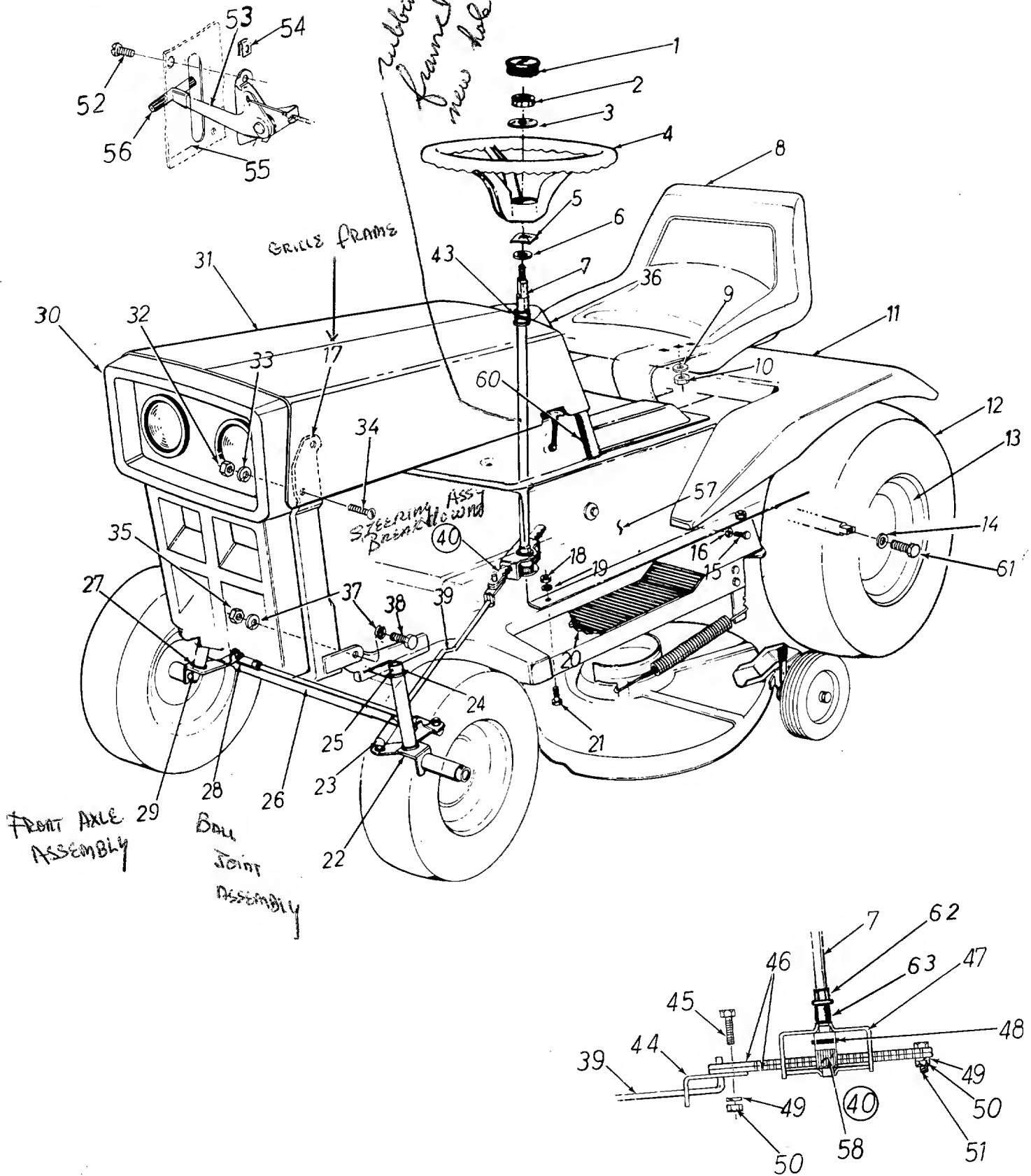
FRONT WHEEL

WHEEL CHART

REAR WHEEL

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
734-0497	Wheel Ass'y. Comp.	734-0601	Wheel Ass'y. Comp.
734-0499	Rim Ass'y. Only	734-0603	Rim Ass'y. Only
734-0498	Tire Only 15 x 6.00	734-0516	Tire Only 18 x 8.50
734-0255	Air Valve	734-0255	Air Valve

138-493A 138-496A

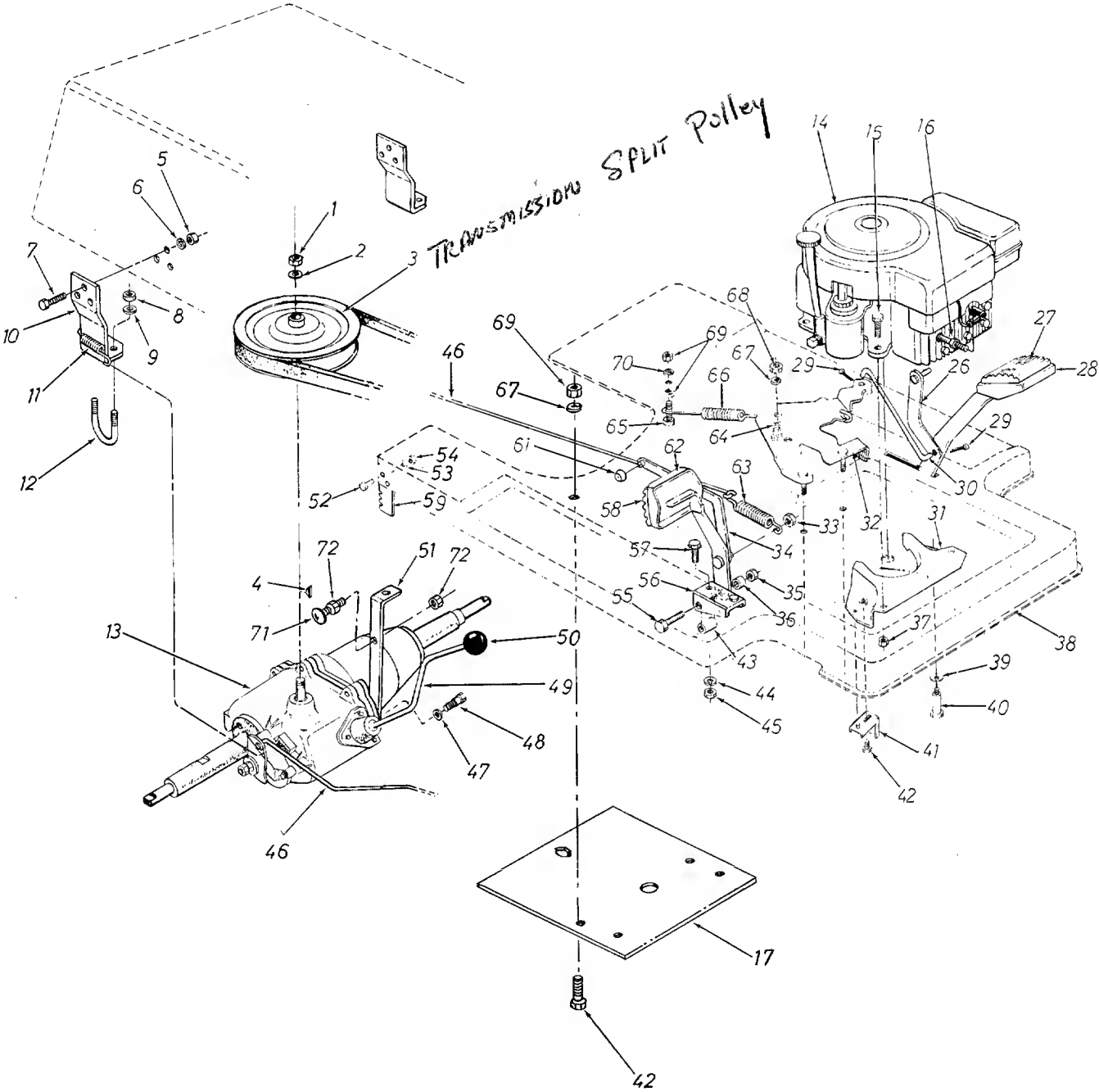


PARTS LIST FOR MODELS 138-493A AND 138-496A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0220		Steering Wheel Cap		29	09095	—456	Front Axle Ass'y. R.H.	
2	712-0158		Hex Cent. L-Nut 5/16-18 Thd.		30	731-0409		Grille—Front	
3	736-0219		Bell. Wash. .400 I.D. x 1.13 O.D.		31	11836	—456	Front Hood	
4	731-0356		12.0 inch Steering Wheel		32	712-0287		Hex Nut 1/4-20 Thd. *	
5	712-0222		Push Nut 5/8" Dia.		33	736-0329		Spring L-Wash. 1/4" Scr. *	
6	736-0174		Wave Wash. .660 I.D. x .88 O.D.		34	710-0286		Truss Mach. Scr. 1/4-20 x .50" Lg. *	
7	738-0407		Steering Shaft		35	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
8	757-0264		Seat Ass'y. Comp.		36	12360		Dash Panel Ass'y.	
9	736-0921		Spring L-Wash. 1/2" Scr. *		37	736-0105		Bell. Wash.	
10	712-0206		Hex Nut 1/2-13 Thd. *		38	710-0253		Hex Scr. 3/8-16 x 1.00" Lg. *	
11	09087	—456	Rear Fender		39	747-0138		Steering Rod	
12	734-0601		Rear Wheel Ass'y. Comp. 18.0 x 8.50		40	717-0294		Steering Ass'y. Breakdown	
	734-0516		Rear Wheel Tire Only 18.0 x 8.50		43	748-0228		Hex Flange Brg. .505 I.D. Bronze	
	734-0255		Air Valve—Tubeless		44	12372		Steering Rod Brkt.	
13	734-0603		Rear Wheel Rim Ass'y.		45	710-0412		Hex Scr. 1/4-28 x .75" Lg. *	
14	736-0242		Bell. Wash.		46	11048		Steering Segment	
15	710-0258		Hex Scr. 1/4-20 x .62" Lg. *		47	11074		Steering Housing Ass'y.	
16	736-0329		Spring L-Wash. 1/4" Scr. *		48	715-0134		Spring Pin Spir. 3/16" Dia. x 1.50" Lg.	
17	13322		Grille Frame		49	736-0329		Spring L-Wash. 1/4" Scr. *	
18	712-0267		Hex Nut 5/16-18 Thd. *		50	712-0117		Hex Nut 1/4-28 Thd. Lock *	
19	736-0119		Spring L-Wash. 5/16" Scr. *		51	710-0412		Hex Scr. 1/4-28 x .75" Lg. *	
20	723-0241		Foot Pad 15.75" Lg. x 4.0" Wide		52	710-0351		Truss Mach. B-Tapp Scr. #10 x .50" Lg.	
21	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg. *		53	746-0160		Throttle Control—Comp.	
22	09098		Front Axle Ass'y. L.H.		54	712-0147		Speed Nut #10-24 U-Type	
23	723-0156		Ball Joint Ass'y.		55	12360		Dash Panel Ass'y.	
24	711-0169		Collar 5/8" I.D.		56	722-0111		Knob Only—Throttle Control	
25	710-0494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup		57	13466		Upper Frame	
26	711-0613		Tie Rod		58	748-0203		12 Teeth Spur Gear	
27	748-0227		Flange Brg. 6.30 I.D.		60	731-0144		Vinyl Blk. Strip for Dash 12.0' Lg.	
28	723-0156		Ball Joint Ass'y.		61	710-0627		Hex Scr. w/Lock 5/16"-24 x .75" Lg.	
					62	748-0228		Hex Flange Brg. .50 I.D.	
					63	750-0151		Spacer .50" I.D. x .75 O.D. x 1.12" Lg.	

* For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

138-493A
138-496A

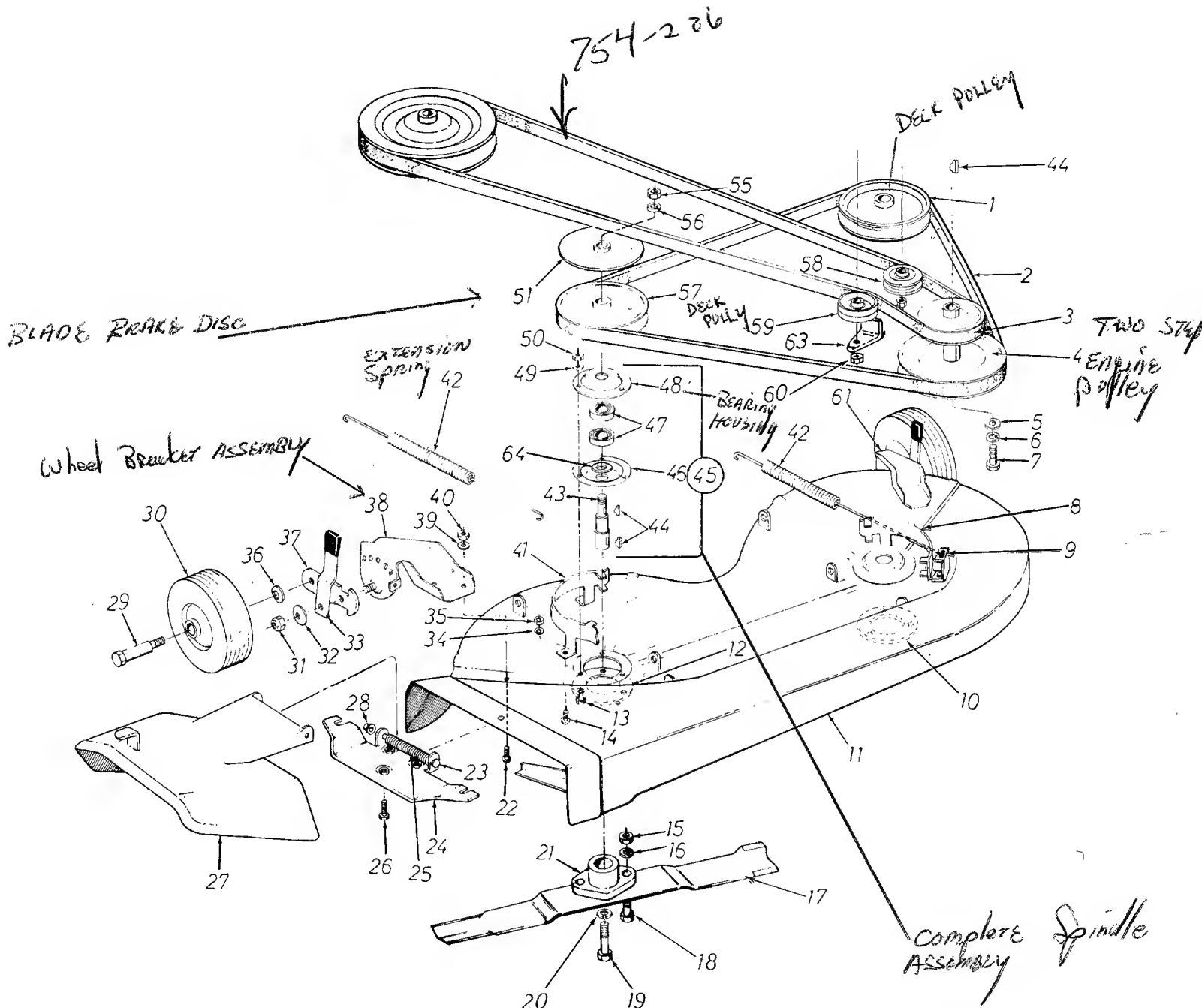


PARTS LIST FOR MODELS 138-493A AND 138-496A

REF NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	712-0922		Hex Jam Nut 1/2-20 Thd.*		41	12160		Belt Keeper Ass'y.	
2	736-0921		L-Wash. 1/2" Scr.*		42	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
3	756-0267		Transmission Split Pulley .50" I.D.		43	750-0298		Spacer .384 I.D. x .500 O.D. x 1.43" Lg.	
4	714-0129		#4 Hi-Pro Key 3/32 x 5/8" Dia.		44	736-0119		L-Wash. 5/16" Scr.*	
5	712-0267		Hex Nut 5/16-18 Thd.*		45	712-0267		Hex Nut 5/16-18 Thd.*	
6	736-0119		L-Wash. 5/16" Scr.*		46	747-0110		Brake Rod .25" Dia. x 22.25" Lg.	
7	710-0118		Hex Scr. 5/16-18 x .75" Lg.*		47	736-0242		Bell. Wash. .345 I.D. x .88 O.D.	
8	712-0798		Hex Ins. L-Nut 3/8-16 Thd.						
9	736-0169		L-Wash. 3/8" Scr.*		48	710-0371		Hex Scr. 5/16-18 x .88" Spec.	
10	13438		Transaxle "U" Brkt.	N	49	717-0391		Shift Lever for Transaxle	
11	732-0157		Spring .38 O.D. x 3.25" Lg.		50	720-0165		Gear Shift Knob	
12	747-0268		"U"-Bolt 5/16-18 Thd.		51	13435		Transaxle Support Brkt.	N
13	—		Transaxle Complete		52	710-0258		Hex Scr. 1/4-20 x .62" Lg.*	
14	—		Engine		53	736-0329		L-Wash. 1/4" Scr.*	
15	710-0442		Hex Scr. 5/16-18 x 1.50" Lg.*		54	712-0287		Hex Nut 1/4-20 Thd.*	
16	—		Part of Engine		55	710-0194		Hex Scr. 3/8-16 x 3.00" Lg.*	
17	13696		Steering Support Plate	N	56	11039		Pedal "U"-Brkt. Ass'y.	
26	11057		Parking Brake Lever Ass'y.		57	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.	
27	12379		Clutch Pedal Pad		58	12378		Brake Pedal Pad	
28	11037		Clutch Pedal Ass'y.		59	10410		Spring Brkt.	
29	714-0507		Cotter Pin 3/32" Dia. x .75" Lg.*		60	761-0169		Blade Brake Ass'y. 2.60 High (Not Shown)	
30	747-0117		Clutch Rod		61	726-0121		Push Cap 1/4" Dia. Black	
31	12654		Belt Guard Ass'y.—Engine		62	12813		Brake Pedal Ass'y.	
32	12448		Idler Brkt. Ass'y.		63	732-0245		Extension Spring .90 O.D. x 3.75" Lg.	
33	712-0158		Hex Cent. L-Nut 5/16-18 Thd.		64	738-0140		Shld. Scr. .437 Dia. x .180	
34	12806		Parking Brake—Lever Ass'y. R.H.		65	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*	
35	712-0375		Hex Cent. L-Nut 3/8-16 Thd.		66	732-0191		Spring .75 O.D. x 11.00" Lg.	
36	711-0630		Spacer .380 I.D. x .50 O.D. x .562		67	736-0119		L-Wash. 5/16" Scr.*	
37	712-0267		Hex Nut 5/16-18 Thd.*		68	712-0267		Hex Nut 5/16-18 Thd.*	
38	13460		Frame Ass'y.		69	712-0267		Hex Nut 5/16-18 Thd.*	
39	736-0105		Bell.-Wash. .400 I.D. x .88 O.D.		70	736-0119		L-Wash. 5/16" Scr.*	
40	738-0215		Shld. Scr. .489" Dia. x 3.00" Lg.		71	710-0262		Carr. Bolt 5/16-18 x 1.50" Lg.*	
					72	712-0267		Hex Nut 5/16-18 Thd.*	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

138-493A
138-496A

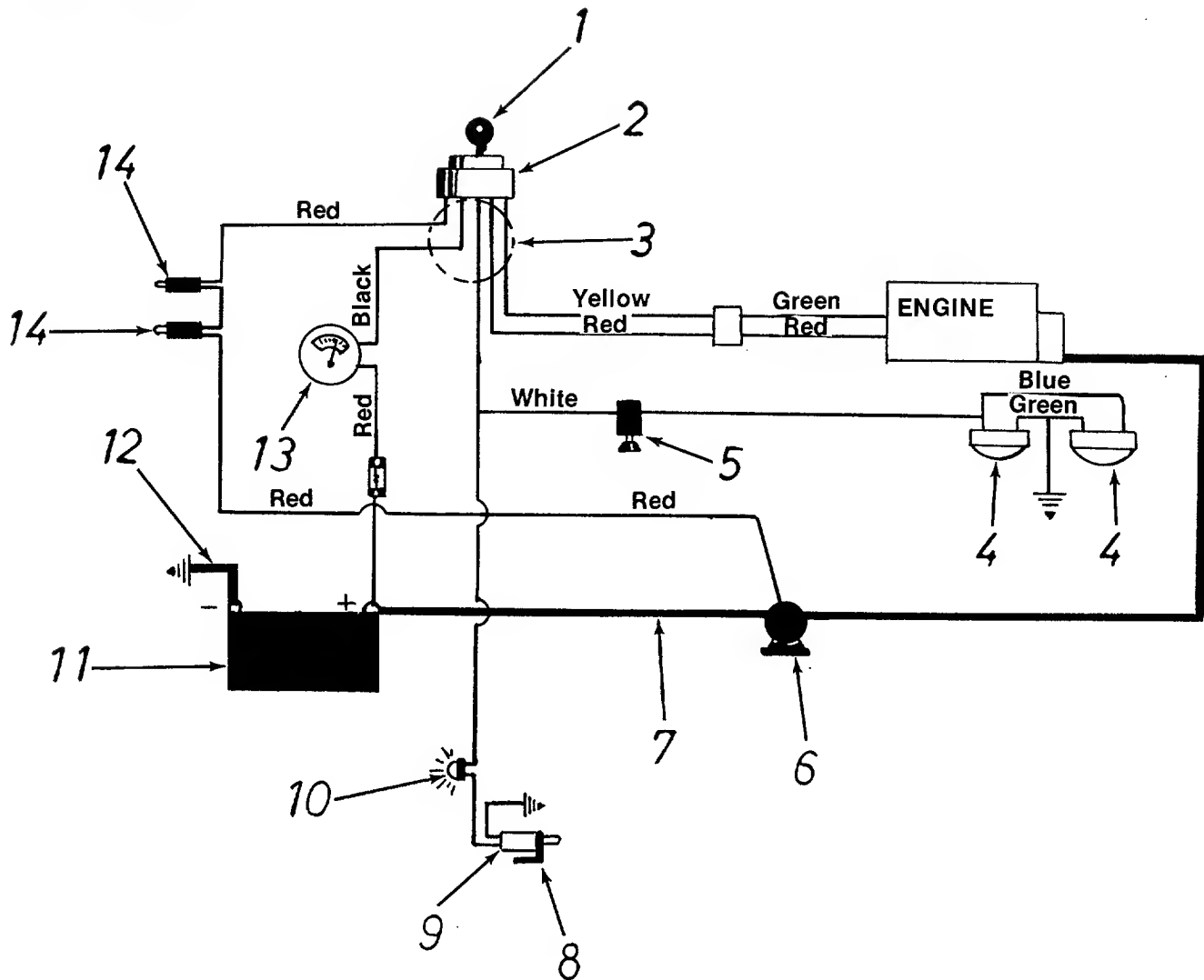


PARTS LIST FOR MODELS 138-493A AND 138-496A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	756-0251		Deck Pulley 4.75" O.D.		33	10949		Spring Lever Ass'y. w/ Knob	
2	754-0145		"V"-Belt 21/32 x 69" Lg. (Blade Drive Belt)		34	736-0329		L-Wash. 1/4" Scr.*	
3	754-0226		"V"-Belt 1/2 x 65" Lg. (Transmission)		35	712-0287		Hex Nut 1/4-20 Thd.*	
4	756-0302		Two Step Engine Pulley		36	736-0105		Bell. Wash. .400 I.D. x .88 O.D.	
5	711-0572		Step Washer		37	10937		Wheel Pivot Bar	
6	736-0169		L-Wash. 3/8" Scr.*		38	11236		Wheel Brkt. Ass'y.—R.H. (Deck)	
7	710-0152		Hex Scr. 3/8-24 x 1.00" Lg.*		39	736-0329		L-Wash. 1/4" Scr.*	
8	12672		Belt Guard—L.H. Deck		40	712-0287		Hex Nut 1/4-20 Thd.*	
9	12405		Deck Spring Brkt.		41	12673		Belt Guard—R.H. (Deck)	
10	09164		Deck Reinforcement Plate		42	732-0307		Extension Spring	
11	13454		38" Deck Ass'y.		43	711-0255		Blade Spindle	
12	09164		Deck Reinforcement Plate		44	714-0365		#6 Hi-Pro Key 5/32 x 5/8" Dia.	
13	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*		45	09321		Spindle Ass'y. Comp. (Deck)	
14	710-0289		Hex Scr. 1/4-20 x .50" Lg.*		46	08253		Bearing Housing	
15	712-0123		Hex Nut 5/16-24 Thd.*		47	741-0919		Ball Brg. .787 I.D. x 1.85 O.D.	
16	736-0119		L-Wash. 5/16" Scr.*		48	08253		Bearing Housing	
17	742-0122		19" Blade		49	736-0329		L-Wash. 1/4" Scr.*	
18	710-0117		Hex Scr. 5/16-24 x 1.00" Lg.		50	712-0287		Hex Nut 1/4-20 Thd.*	
19	710-0459		Hex Scr. 3/8-24 x 1.50" Lg. H.T.		51	09322		Blade Brake Disc	
20	736-0217		L-Wash. 3/8" Scr. (Heavy Duty)		55	712-0261		Hex Jam Nut 5/8-11 Thd.	
21	10769		Blade Adapter Kit		56	736-0158		L-Wash. 5/8" Scr.*	
22	710-0289		Hex Scr. 1/4-20 x .50" Lg.*		57	756-0251		Deck Pulley 4.75" O.D.	
23	711-0571		Pivot Pin		58	756-0116		"V"-Belt Idler 3.06" O.D.	
24	11399		Adapter Plate Ass'y.		59	756-0217		Fl. Idler 2.75" O.D. w/ Flanges	
25	732-0261		Torsion Spring		60	712-0116		Hex Ins. L-Nut 3/8-24 Thd.	
26	710-0195		Hex Scr. 1/4-28 x .62" Lg.*		61	11237		Wheel Brkt. Ass'y.—L.H. (Deck)	
27	11633		Chute Cover Ass'y.		62	13453		38" Deck Ass'y. Comp. (For Service)	
28	726-0106		Push Nut—1/4" Rod		63	732-0332		Belt Trap	
29	738-0119		Shld. Scr. .625" Dia. x 1.75" Lg.		64	736-0287		Fl-Wash. .793 I.D. x 1.24 x .060	
30	734-0796		Wheel Ass'y.—5.0 x 1.25 Dia. (Deck)						
31	712-0116		Hex Ins. L-Nut 3/8-24 Thd.						
32	736-0105		Bell. Wash. .400 I.D. x .88 O.D.						

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

138-493A

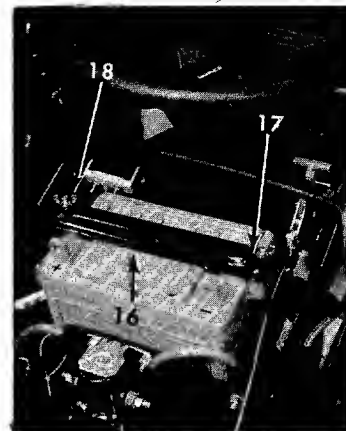


PARTS LIST FOR ELECTRICAL SYSTEM MODEL 138-493A

REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	725-0201	Ignition Key	N
2	725-0380	Ignition Switch	
3	725-0615	Wire Harness	
4	725-0222	Headlight	
5	725-0202	Light Switch	
6	725-0530	Solenoid	
7	725-0422	Electric Wire	
8	12356	Warning Light Brkt.	
9	725-0379	Safety Switch—Red, N.C.	
10	725-0428	Indicator Light	
11	725-0453	12 V Battery (Manifold Type)	
12	725-0122	Electric Wire	
13	725-0119	Ammeter	
14	725-0268	Safety Switch—Black, N.O.	

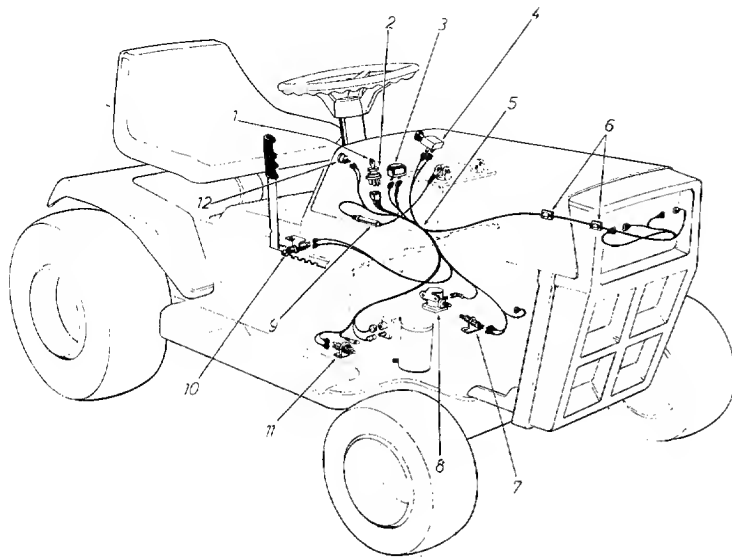
138-496A

This wiring diagram, labeled 138-496A, illustrates the electrical system for a vehicle. The system is powered by a 12V battery (14) connected to a fuse block (15). The battery's positive terminal is connected to a red wire (11) that runs through a yellow wire (12) to a fuse block (13). The negative terminal is connected to a green wire (14) that runs through a red wire (15) to a fuse block (16). The engine (17) is connected to the battery via a red wire (18) and a blue wire (19). The engine's ignition system is connected to a distributor (20) and a coil (21). The distributor is connected to a spark plug (22) and a green wire (23). The coil is connected to a red wire (24) and a green wire (25). The green wire (25) is connected to a green wire (26) that runs through a red wire (27) to a fuse block (28). The fuse block (28) is connected to a red wire (29) that runs through a green wire (30) to a fuse block (31). The fuse block (31) is connected to a red wire (32) that runs through a green wire (33) to a fuse block (34). The fuse block (34) is connected to a red wire (35) that runs through a green wire (36) to a fuse block (37). The fuse block (37) is connected to a red wire (38) that runs through a green wire (39) to a fuse block (40). The fuse block (40) is connected to a red wire (41) that runs through a green wire (42) to a fuse block (43). The fuse block (43) is connected to a red wire (44) that runs through a green wire (45) to a fuse block (46). The fuse block (46) is connected to a red wire (47) that runs through a green wire (48) to a fuse block (49). The fuse block (49) is connected to a red wire (50) that runs through a green wire (51) to a fuse block (52). The fuse block (52) is connected to a red wire (53) that runs through a green wire (54) to a fuse block (55). The fuse block (55) is connected to a red wire (56) that runs through a green wire (57) to a fuse block (58). The fuse block (58) is connected to a red wire (59) that runs through a green wire (60) to a fuse block (61). The fuse block (61) is connected to a red wire (62) that runs through a green wire (63) to a fuse block (64). The fuse block (64) is connected to a red wire (65) that runs through a green wire (66) to a fuse block (67). The fuse block (67) is connected to a red wire (68) that runs through a green wire (69) to a fuse block (70). The fuse block (70) is connected to a red wire (71) that runs through a green wire (72) to a fuse block (73). The fuse block (73) is connected to a red wire (74) that runs through a green wire (75) to a fuse block (76). The fuse block (76) is connected to a red wire (77) that runs through a green wire (78) to a fuse block (79). The fuse block (79) is connected to a red wire (79) that runs through a green wire (79) to a fuse block (79).



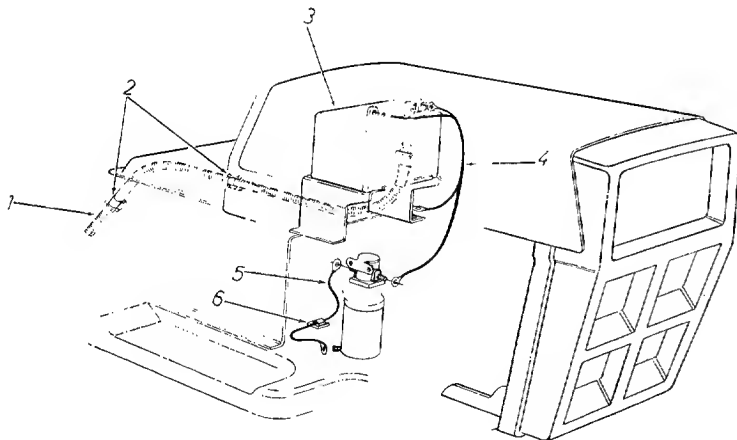
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	725-0222		Headlights	
2	725-0530		Solenoid	
3	725-0119		Ammeter	
5	725-0379		Safety Switch—Red, w/o Brkt.	
6	12356		Warning Light Brkt.	
7	725-0428		Brake Indicator Light	
8	725-0364		Wiring Harness	
9	725-0201		Ignition Key	
10	725-0267		Ignition Switch	
11	725-0453		Battery	
12	725-0202		Headlight Switch	
13	725-0268		Safety Switch—Black w/Brkt.	
14	725-0121		Electric Wire	
15	725-0122		Electric Wire	
16	12614		Battery Hold Down	
17	711-0222		Hold Down Rods	
18	712-0113		Wing Nuts	

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PARTS LIST FOR MODELS 138-493A AND 138-496A

REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	725-0201	Ignition Key	
2	725-0267	Ignition Switch	
3	725-0119	Ammeter	
4	725-0202	Headlight Switch	
5	725-0364	Wire Harness	
6	726-0152	Mtg. Clamp	
7	725-0268	Safety Switch	
8	725-0530	Solenoid	
9	725-0298	Fuse 7½ Amp ¼ Dia. x 1.25 Lg.	
10	725-0268	Safety Switch	
11	725-0379	Safety Switch—Red w/Brkt.	
12	725-0428	Indicator Light	



PARTS LIST FOR MODELS 138-493A AND 138-496A

REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	731-0333	Convoluted Conduit	
2	726-0154	Push Mtg. Ties 3/8 I.D.	
3	725-0453	Battery 12 V-Manifold Vented	
4	725-0503	Battery Cable Harness	
5	725-0121	Electric Wire	
6	726-0152	Mtg. Clamp	

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts number, description of parts and the quantity of each part required.

ALABAMA	BIRMINGHAM
Auto Electric & Carburetor Co.	2625 4th Ave. S. 35233
ARKANSAS	NORTH LITTLE ROCK
Sutton's Lawn Mower Shop	Rt. 4, Box 368 72117
	FORT SMITH
Mity Mite Motors, Inc.	2515 Towson Ave. 72901
CALIFORNIA	PORTERVILLE
Billious	75 North D Street 93257
	SAN BERNARDINO
Lawn Mower Supply Co.	25608 E. Baseline 92410
	SAN FRANCISCO
J.W. Jewett Co.	981 Folsom St. 94107
	SACRAMENTO
Luttig & Severson	2030 28th St. 95818
COLORADO	DENVER
South Denver Lawn Equip.	527 West Evans 80223
FLORIDA	JACKSONVILLE
Radco Distributors	2403 Market St. 32206
	CORAL GABLES
Moz-All of Florida, Inc.	365 Greco Ave. 33146
GEORGIA	EAST POINT
East Point Cycle & Key	2834 Church St. 30344
ILLINOIS	LYONS
Keen Edge Co.	8615 Ogden Ave. 60534
INDIANA	ELKHART
Parts & Sales Inc.	2101 Industrial Pkwy. 46514
IOWA	DUBUQUE
Power Lawn & Garden Equip.	2551 J.F. Kennedy 52001
LOUISIANA	NEW ORLEANS
Suhren Engine Co.	8330 Earhart Blvd. 70118
MARYLAND	TAKOMA PARK
Center Supply Co.	6867 New Hampshire Ave. 20012
MASSACHUSETTS	SPRINGFIELD
Morton B. Collins Co.	300 Birnie Ave. 01107
MICHIGAN	MOUNT CLEMENS
Power Equipment Dist.	36463 South Gratiot 48043
	LANSING
Lorenz Service Co.	2500 S. Pennsylvania 48900
MINNESOTA	MINNETONKA
Hance Distributing Inc.	11212 Wayzata Blvd. 55343
MISSISSIPPI	BILOXI
Biloxi Sales & Service, Inc.	506 Caillavet St. 39533
MISSOURI	KANSAS CITY
Automotive Equip. Service	3117 Holmes St. 64109
	ST. LOUIS
Henzler, Inc.	2015 Lemay Ferry Rd. 63125
NEW JERSEY	BELLMAWR
Lawnmower Parts Inc.	717 Creek Rd., P.O. Box 7 08030
NEW YORK	CARTHAGE
Gamble Dist., Inc.	West End Ave. 13619

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing **Engines—Gasoline**, Briggs & Stratton or Tecumseh Lauson.

NORTH CAROLINA	GREENSBORO
Dixie Sales Company	327 Battleground Ave. 27402
	GOLDSBORO
Smith Hardware Co.	515 N. George St. 27530
OHIO	WADSWORTH
National Central	687 Seville Rd. 44281
	CLEVELAND
Bleckrie, Inc.	7900 Lorain Ave. 44102
	CARROLL
Stebe's Mid-State Mower Supply ..	Box 366 43112
	WILLARD
Sunshine Wholesale Tire Outlet ..	Route 224 44890
OKLAHOMA	MUSKOGEE
Victory Motors, Inc.	605 S. Cherokee 74401
	ADA
Ada Auto Supply	301 E. 12th St. 74820
OREGON	PORTLAND
Kenton Supply Co.	8216 N. Denver Ave. 97217
PENNSYLVANIA	HARRISBURG
Eeco Inc.	4021 N. 6th St. 17110
	PHILADELPHIA
Thompson Rubber Co.	5222-24 N Fifth St. 19120
	PITTSBURGH
Bluemont Co.	11125 Frankstown Rd. 15235
TENNESSEE	KNOXVILLE
Master Repair Service	2423 Broadway, N.E. 37917
	MEMPHIS
Memphis Cycle & Supply Co.	421 Monroe Ave. 38107
American Sales & Service, Inc.	1922 Lynnbrook 38116
TEXAS	DALLAS
Marr Brothers, Inc.	423 E. Jefferson 75203
	HOUSTON
Bullard Supply Co.	2409 Commerce St. 77003
	SAN ANTONIO
Catto & Putty, Inc.	P.O. Box 2408 78206
	FORT WORTH
Woodson Sales Corp.	1702 N. Sylvania 76111
UTAH	SALT LAKE CITY
A-1 Engine & Mower Co.	437 E. 9th St. 84111
VERMONT	BURLINGTON
Vermont Appliance Co.	44 Lakeside Ave. 05401
VIRGINIA	RICHMOND
RBI Corp.	963 Myers St. 23260
WASHINGTON	SEATTLE
Bailey's Rebuild, Inc.	1325 E. Madison St. 98102
WEST VIRGINIA	CHARLESTON
Young's, Inc.	233 Virginia St., E. 25301
WISCONSIN	APPLETON
Automotive Supply Co.	123 S. Linwood Ave. 54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.